A#37
09/108 673

WEST Search History

DATE: Wednesday, July 03, 2002

Set Name side by side	Query	Hit Count	Set Name result set
	DB=USPT,PGPB,JPAB,EPAB,DWPI; PLUR=YES; OP=ADJ		
L11	l2 same L8	33	L11
L10	l2 and L8	345	L10
L9	l2 with L8	1	L9
L8	capric with lauric	5108	L8
L7	l2 and l1	379	L7
L6	l3 and l4	1	L6
L5	l3 or L4	14	L5
L4	l2 with lauric	10	L4
L3	L2 with capric	5	L3
L2	dna or rna or oligonucleotide or plasmid or (nucleic acid) or polynucleotide	173388	L2
L1	capric and lauric	5694	L1

END OF SEARCH HISTORY

Generate Collection | Print

Search Results - Record(s) 1 through 14 of 14 returned.

1. 20020012696 . 06 Jan 99. 31 Jan 02. COMPOSITIONS CONTAINING AT LEAST ONE NUCLEIC ACID. MAHY, PATRICK, et al. 424/450; 264/4.1 435/320.1 514/44 A61K048/00 A61K009/127 B01J013/02.

2. 6387396 . 06 Jan 99; 14 May 02. Compositions containing at least one nucleic acid. Mahy; Patrick, et al. 424/450; 424/417 424/420 435/458. A61K009/127.

3. 6316428 . 26 Aug 99; 13 Nov 01. Topical moisturizing composition and method. Crandall; Wilson Trafton. 514/78; 514/159 514/552 514/847 514/861 514/936 514/937 514/944. A61K031/685 A61K031/23.

4. 6228595 . 19 Jul 00; 08 May 01. Primer sets for analyzing fatty acyl-CoA oxidase expression. Morris; Dale Lynn, et al. 435/6; 435/91.2 435/91.51 536/24.3 536/24.33. C12Q001/68.

5. 6127117 . 13 May 97; 03 Oct 00. Primer sets for analyzing cytochrome P450 isoenzymes expression. Morris; Dale Lynn, et al. 435/6; 435/91.2 435/91.51 536/22.1 536/24.33. C12Q001/68 C12P019/34 C07H021/04.

6. 5945409 . 16 Jun 97; 31 Aug 99. Topical moisturizing composition and method. Crandall; Wilson Trafton. 514/78; 514/159 514/552 514/847 514/861 514/936 514/937 514/944. A61K031/685 A61K031/23.

7. 5641847 . 28 Dec 95; 24 Jun 97. Oil-absorbent polymer and use therefor. Hozumi; Yoshiyuki, et al. 526/328.5; 524/284 524/356 524/379. C08F220/10 C08K005/01 C08K005/05 C08K005/07 C08K005/10.

8. 5405628 . 17 Sep 93; 11 Apr 95. Feed additive composition for ruminants. Ueda; Satoshi, et al. 426/99; 424/438 426/656 426/72 426/74 426/807. A23K001/18.

9. 5374600 . 27 Sep 93; 20 Dec 94. Oil-absorbent polymer and use therefor. Hozumi; Yoshiyuki, et al. 502/402; 526/328.5. B01J020/26 C08F220/10.

☑ 10. 4563349 . 01 Oct 84; 07 Jan 86. Superoxide dismutase, its immobilized form, and their production and use. Miyata; Kouichi, et al. 424/94.4; 435/179 435/189 435/880 435/881. A61K037/50 C12N009/02 C12N011/12 C12R001/43.

11. JP 57080314 A . 09 Nov 80. 19 May 82. PHARMACEUTICAL PREPARATION TO BE MEDICATED TO RECTUM. KITAO, KAZUHIKO, et al. A61K009/02; A61K031/52 A61K031/70 A61K037/02.

12. WO 200142436 A2 . Isolated nucleic acids encoding dodecanoic diacid synthesizing enzyme, cyclododecanone monooxygenase for bioproduction of dodecanoic diacid from cyclododecanone. CHEN, M W, et al. C12N009/00.

13. CA 2240289 C, WO 9726318 A1, AU 9715724 A, US 5750481 A, BR 9706972 A, JP 2000503697 W, EP 1019482 A1, KR 99076741 A, MX 9805164 A1, TW 411364 A . Soap having improved foaming and mildness characteristics - is prepared by using saponified products of laurate canola oil. BASU, H, et al. A01H001/00 A61K007/50 C11C003/12 C11D009/26 C11D009/38 C11D013/00 C11D013/30 C11D017/00 C12N005/10 C12N009/16 C12N015/09.

---

14. US 5910631 A, WO 9506740 A2, AU 9477398 A, WO 9506740 A3, EP 716708 A1, AU 688377 B . An acyl-(ACP)-thio:esterase DNA of medium-chain specificity - isolated from Cuphea lanceolata; for plant transformation to produce C10:0 fatty acids, useful in the prodn of eg cosmetics.. MARTINI, N, et al. A01H005/00 C12N005/14 C12N015/29 C12N015/52 C12N015/55 C12N015/82.

Generate Collection Print

Terms	Documents
l3 or L4	14

Previous Page Next Page

Generate Collection | Print

Search Results - Record(s) 51 through 100 of 345 returned.

51. 6368856. 14 Sep 00; 09 Apr 02. Antisense inhibition of Phosphorylase kinase beta expression. Monia; Brett P., et al. 435/375; 435/325 435/6 435/91.1 536/23.1 536/23.2 536/24.3 536/24.31 536/24.33 536/24.5. C12Q001/68 C12N015/85 C12N015/86 C07H021/04 C07H021/02.

52. 6365354. 31 Jul 00; 02 Apr 02. Antisense modulation of lysophospholipase I expression. Bennett; C. Frank, et al. 435/6; 435/325 435/375 536/23.1 536/24.5. C12Q001/68 C12N005/00 C07H021/02 C07H021/04.

53. 6355483. 27 Nov 00; 12 Mar 02. Antisenses inhibition of SRC-2 expression. Bennett; C. Frank, et al. 435/375; 435/325 435/366 435/6 514/44 536/23.1 536/24.5. C12N015/00 C12Q001/68 A61K048/00.

54. 6355482. 17 Nov 00; 12 Mar 02. Antisense inhibition of integrin beta 4 binding protein expression. Bennett; C. Frank, et al. 435/375; 435/325 435/6 435/91.1 536/23.1 536/24.3 536/24.31 536/24.33 536/24.5. C07H021/04 C07H021/02 C12N015/85 C12N015/86 C12P019/34.

55. 6352858. 11 Sep 00; 05 Mar 02. Antisense modulation of BTAK expression. Cowsert; Lex M., et al. 435/377; 435/320.1 435/325 435/366 435/6 435/91.1 514/44 536/23.1 536/24.1 536/24.31 536/24.5. C12N015/11 C07H021/04 A61K048/00.

56. 6346551. 07 Mar 97; 12 Feb 02. Inhibitory or blocking agents of molecular generating and/or inducing functions. Koyoma; Shozo, et al. 514/690; 568/377. A61K031/122 C07C049/607.

57. 6346416. 29 Aug 00; 12 Feb 02. Antisense inhibition of HPK/GCK-like kinase expression. Dean; Nicholas M., et al. 435/375; 435/325 435/6 435/91.1 435/91.3 536/23.1 536/23.2 536/24.3 536/24.31 536/24.33 536/24.5. C07H021/02 C07H021/04 C12N015/85 C12N015/86 C12Q001/68.

58. 6338896. 29 Mar 99; 15 Jan 02. Magnetic recording medium. Meguro; Katsuhiko, et al. 428/323; 428/336 428/474.7 428/694BS 428/694SL 428/900. G11B005/738.

59. 6335194. 02 Feb 00; 01 Jan 02. Antisense modulation of survivin expression. Bennett; C. Frank, et al. 435/375; 424/649 435/377 436/6 514/44 514/449 536/23.1 536/24.1 536/24.5. C07H021/04 C12N015/00 C12N015/09 C12Q001/68.

60. 6331420. 30 Apr 99; 18 Dec 01. Cytochrome P450 monooxygenase and NADPH cytochrome P450 oxidoreductase genes and proteins related to the omega hydroxylase complex of Candida tropicalis and methods relating thereto. Wilson; C. Ron, et al. 435/145; 435/183 435/189 435/252.3 435/254.22 435/320.1 536/23.2. C12P007/46.

61. 6331399. 16 May 00; 18 Dec 01. Antisense inhibition of tert expression. Monia; Brett P., et al. 435/6; 435/325 435/375 536/23.1 536/24.5. C07H021/04 C12Q001/68 C12N005/02.

62. 6329203. 08 Sep 00; 11 Dec 01. Antisense modulation of glioma-associated oncogene-1 expression. Bennett; C. Frank, et al. 435/377; 435/320.1 435/325 435/366 435/6 435/91.1 514/44 536/23.1

536/24.1 536/24.31 536/24.5. C12N015/11 C07H021/04 A61K048/00.

63. 6328979. 23 Jun 00; 11 Dec 01. Sustained release medicinal compositions. Yamashita; Noboru, et al. 424/400; 424/423 424/457 424/468. A61K009/00 A61K009/52 A61K009/22 A61F002/00.

64. 6323029. 19 Jan 00; 27 Nov 01. Antisense modulation of glycogen synthase kinase 3 beta expression. Butler; Madeline M., et al. 435/375; 435/6 536/23.1 536/24.31 536/24.5. A61K031/711 A61K031/712 A61K031/712 C07H021/00 C12N005/08.

65. 6316259. 21 Jan 00; 13 Nov 01. Antisense inhibition of glycogen synthase kinase 3 alpha expression. Monia; Brett P., et al. 435/375; 435/6 536/23.1 536/24.31 536/24.5. A61K031/708 A61K031/711 A61K031/712 A61K031/712 C07H021/00.

66. 6309882. 10 Sep 99; 30 Oct 01. Antisense inhibition of replication protein a p70 subunit. Monia; Brett P., et al. 435/375; 435/325 435/6 435/91.1 536/23.1 536/24.3 536/24.31 536/24.33 536/24.5. C07H021/02 C07H021/04 C12Q001/68 C12N015/85 C12K015/86.

67. 6309663. 17 Aug 99; 30 Oct 01. Triglyceride-free compositions and methods for enhanced absorption of hydrophilic therapeutic agents. Patel; Mahesh V., et al. 424/450; 424/435 424/451 424/455 424/456 424/463 424/464 424/489 424/499 424/502 514/937 514/938 514/939 514/940 514/941 514/942 514/943 514/975. A61K009/127.

68. 6306899. 23 Aug 99; 23 Oct 01. Inhibition and treatment of Hepatitis B virus and Flavivirus by Helioxanthin and its analogs. Cheng; Yung-Chi, et al. 514/464; 514/467 514/569 514/729 514/935 549/235 549/320 549/433 562/466 568/808. A61K031/36.

69. 6306655. 13 Jun 00; 23 Oct 01. Antisense inhibition of C/EBP alpha expression. Monia; Brett P., et al. 435/375; 435/325 435/6 435/91.1 435/91.2 536/23.1 536/23.2 536/24.3 536/24.31 536/24.33 536/24.5. C07H021/04 C07H021/02 C12N015/86 C12N015/85 C12Q001/68.

70. 6306606. 22 Nov 00; 23 Oct 01. Antisense modulation of MP-1 expression. Weber; Michael J., et al. 435/6; 435/375 435/91.1 536/24.5. C12Q001/68 C07H021/04 C12N015/09.

71. 6303374. 18 Jan 00; 16 Oct 01. Antisense modulation of caspase 3 expression. Zhang; Hong, et al. 435/375; 435/455 435/458 435/6 536/23.1 536/24.1 536/24.5. C07H021/04 C12Q001/68 C12N015/85.

72. 6300320. 05 Jan 99; 09 Oct 01. Modulation of c-jun using inhibitors of protein kinase C. Dean; Nicholas M., et al. 514/44; 435/325 435/375 536/24.5. A61K031/70 A01N043/04 C07H021/04 C12N015/85 C12N015/86.

73. 6300132. 17 Dec 99; 09 Oct 01. Antisense inhibition of telomeric repeat binding factor 2 expression. Monia; Brett P., et al. 435/375; 514/44 536/24.5. A61K031/711 A61K031/712 A61K031/712 C07H021/00 C12N005/00.

74. 6294382. 27 Nov 00; 25 Sep 01. Antisense modulation of SRC-1 expression. Bennett; C. Frank, et al. 435/375; 435/325 435/366 435/440 435/455 435/6 435/91.1 514/44 536/23.1 536/24.1 536/24.31 536/24.5. C07H021/04 A61K048/00 C12N015/00 C12Q001/68.

75. 6287860. 20 Jan 00; 11 Sep 01. Antisense inhibition of MEKK2 expression. Monia; Brett P., et

al. 435/375; 514/55 536/24.5. A61K031/711 A61K031/712 A61K031/712 C07H021/00 C12N005/08.

76. 6284538. 24 May 00; 04 Sep 01. Antisense inhibition of PTEN expression. Monia; Brett P., et al. 435/375; 435/366 435/6 435/91.1 536/23.1 536/24.31 536/24.33 536/24.5. C12N005/00.

77. 6277640. 31 Jul 00; 21 Aug 01. Antisense modulation of Her-3 expression. Bennett; C. Frank, et al. 435/455; 435/366 435/375 435/6 435/91.1 536/23.1 536/24.5 536/25.3. C12N015/63 C12N005/08 C12N005/00 C12P019/34 C12Q001/68 C07H021/02 C07H021/04 C07H021/00.

78. 6277636. 14 Sep 00; 21 Aug 01. Antisense inhibition of MADH6 expression. Monia; Brett P., et al. 435/375; 435/325 435/6 435/91.1 536/23.1 536/24.3 536/24.31 536/24.33 536/24.5. C07H021/04 C07H024/02 C12Q001/68 C12N015/85 C12N015/86.

79. 6274589. 29 Jul 99; 14 Aug 01. L-.beta.-dioxolane uridine analogs and their pharmaceutical compositions. Chu; Chung K., et al. 514/274; 514/50 514/51 514/86 544/313. A61K031/505 C07D473/00.

80. 6271030. 14 Jun 00; 07 Aug 01. Antisense inhibition of C/EBP beta expression. Monia; Brett P., et al. 435/375; 435/325 435/6 435/91.1 536/23.1 536/24.3 536/24.31 536/24.33 536/24.5. C12N005/00.

81. 6271029. 27 Oct 99; 07 Aug 01. Antisense inhibition of cytohesin-2 expression. Bennett; C. Frank, et al. 435/375; 514/44 536/24.5. A61K031/708 A61K031/711 A61K031/712 A61K031/712 C12N005/08.

82. 6268151. 20 Jan 00; 31 Jul 01. Antisense modulation of macrophage migration inhibitory factor expression. Murray; Susan, et al. 435/6; 435/91.1 536/23.1 536/24.5. C12Q001/68 C07H021/04 C12P019/34.

83. 6265216. 20 Jan 00; 24 Jul 01. Antisense modulation of cot oncogene expression. Bennett; C. Frank, et al. 435/375; 514/44 536/24.5. A61K031/708 C07H005/00 C12N021/00.

84. 6264996. 11 Dec 97; 24 Jul 01. Composition for inhibiting production of dihydrotestosterone to treat benign prostate hyperplasia. Braswell; A. Glenn, et al. 424/727; 424/450 424/728. A61K035/78.

85. 6261840. 18 Jan 00; 17 Jul 01. Antisense modulation of PTP1B expression. Cowsert; Lex M., et al. 435/375; 435/366 435/458 435/6 435/91.1 536/23.1 536/24.5 536/25.3. C12N005/00 C12N015/88 C12Q001/68 C07H021/02 C07H021/04.

86. 6261573. 25 Oct 99; 17 Jul 01. Immunoadjuvants. Loebelenz; Jean R., et al. 424/278.1; 424/1.11 435/5 514/110 514/137 514/75. A61K045/00 A61K051/00.

87. 6258790. 19 Aug 99; 10 Jul 01. Antisense modulation of integrin .alpha.4 expression. Bennett; C. Frank, et al. 514/44; 435/375 435/378 536/24.5. C12N005/00 C12N005/08 A61K031/710 A61K031/712 L07H024/00.

88. 6258601. 07 Sep 00; 10 Jul 01. Antisense modulation of ubiquitin protein ligase expression. Monia; Brett P., et al. 435/375; 435/366 435/6 435/91.1 536/23.1 536/24.31 536/24.33 536/24.5. C07H021/04 C12Q001/68 C12N015/00.

89. 6258600. 19 Jan 00; 10 Jul 01. Antisense modulation of caspase 8 expression. Zhang; Hong, et

al. 435/366; 435/183 435/212 435/325 435/375 536/23.1 536/24.3 536/24.31 536/24.5. C12N015/85 C12N015/11 C07H021/04.

☐ 90. 6255111. 31 Jul 00; 03 Jul 01. Antisense modulation of Her-4 expression. Bennett; C. Frank, et al. 435/375; 435/455 435/6 536/23.1 536/24.1 536/24.5. C07H021/04 C07H021/02 C12Q001/68.

☐ 91. 6255110. 21 Jan 00; 03 Jul 01. Antisense modulation of ARA70 expression. Cowsert; Lex M., et al. 435/375; 435/455 435/6 536/23.1 536/24.1 536/24.5. C07H021/04 C12Q001/68.

☐ 92. 6251399. 27 Mar 00; 26 Jun 01. Immuno-reactive peptide CTL epitopes of human cytomegalovirus. Diamond; Don Jeffrey, et al. 424/186.1; 424/204.1 424/230.1 424/231.1 424/93.1 424/93.71 514/15 530/328. A61K039/245 A61K039/12 A61K038/04 A61K035/26.

☐ 93. 6248586. 17 Dec 99; 19 Jun 01. Antisense modulation of PKA catalytic subunit C-alpha expression. Monia; Brett P., et al. 435/366; 435/183 435/194 435/325 435/375 536/23.1 536/24.3 536/24.31 536/24.5. C12N015/85 C12N015/11 C07H021/04.

☐ 94. 6245749. 09 Jul 98; 12 Jun 01. Nucleosides with anti-hepatitis B virus activity. Schinazi; Raymond F., et al. 514/47; 536/26.7 536/27.14. A61K031/70 C07H019/16 C07H019/20.

☐ 95. 6242590. 28 Apr 00; 05 Jun 01. Antisense modulation of zinc finger protein-217 expression. Cowsert; Lex M.. 536/24.5; 435/325 435/375 435/6 536/23.1 536/24.3 536/24.31 536/24.33. C07H021/02 C07H021/04 C12Q001/68 A61K031/70 A01N043/04.

☐ 96. 6235723. 18 May 99; 22 May 01. Antisense oligonucleotide modulation of human protein kinase C-.delta. expression. Dean; Nicholas M.. 514/44; 435/455 435/6 435/91.1 536/23.1 536/24.5. A01N043/04 C12P019/34 C07H021/02 C07H021/04 C12Q001/68.

☑ 97. 6234990. 30 Jun 97; 22 May 01. Ultrasound enhancement of transdermal transport. Rowe; Stephen, et al. 604/22;. A61B017/20.

☐ 98. 6228648. 17 Mar 00; 08 May 01. Antisense modulation of ADAM10 expression. Condon; Thomas P., et al. 435/455; 435/325 435/456 435/458 435/6 435/91.1 435/91.5 514/44 536/23.1 536/24.5 536/25.3. C12N015/63 C12N015/85 C12N015/87 C12N015/86 C12N015/88 C12Q001/68 C12P019/34 C07H021/02 C07H021/04 C07H021/00.

☐ 99. 6228642. 18 May 99; 08 May 01. Antisense oligonucleotide modulation of tumor necrosis factor-(.alpha.) (TNF-.alpha.) expression. Baker; Brenda F., et al. 435/375; 435/366 435/6 435/91.1 536/23.1 536/24.31 536/24.33 536/24.5. C07H021/04 C12Q001/68 C12N015/85.

☐ 100. 6225444. 10 Feb 98; 01 May 01. Neuroprotective peptides and uses thereof. Shashoua; Victor E.. 530/345; 530/324 530/325 530/326 530/327 530/328 530/402. C07K007/00 C07K014/00 A61K038/04 A61K038/16.

Generate Collection | Print

Terms	Documents
l2 and L8	345

Previous Page Next Page

Generate Collection | Print

Search Results - Record(s) 151 through 200 of 345 returned.

151. 6110664 . 25 Jun 99; 29 Aug 00. Antisense inhibition of G-alpha-S1 expression. Cowsert; Lex M.. 435/5; 435/325 435/366 435/375 435/6 435/91.1 536/23.1 536/24.31 536/24.33 536/24.5. C07H021/04 C12N015/00 C12Q001/68.

152. 6107092 . 29 Mar 99; 22 Aug 00. Antisense modulation of SRA expression. Cowsert; Lex M., et al. 435/375; 435/455 435/6 536/23.1 536/24.1 536/24.5 536/25.1. C07H021/04 C12N015/09 C12Q001/68.

153. 6107091 . 03 Dec 98; 22 Aug 00. Antisense inhibition of G-alpha-16 expression. Cowsert; Lex M.. 435/375; 435/366 435/6 435/91.1 536/23.1 536/24.31 536/24.33 536/24.5. C07H021/04 C12Q001/168 C12N015/85.

154. 6100090 . 25 Jun 99; 08 Aug 00. Antisense inhibition of PI3K p85 expression. Monia; Brett P., et al. 435/375; 435/455 435/6 435/91.1 514/44 536/23.1 536/24.5. C07H021/02 C07H021/04 C12Q001/68 C12P019/34 A01N043/04.

155. 6096722 . 27 May 98; 01 Aug 00. Antisense modulation of cell adhesion molecule expression and treatment of cell adhesion molecule-associated diseases. Bennett; C. Frank, et al. 514/44; 435/325 435/375 435/6 435/91.1 536/23.1 536/24.5. C07H021/02 C07H021/04 A61K048/00.

156. 6096543 . 20 Nov 98; 01 Aug 00. Antisense inhibition of human mek1 expression. Monia; Brett P., et al. 435/375; 435/325 435/366 435/455 435/6 435/91.1 536/23.1 536/24.31 536/24.33 536/24.5. C12Q001/68 C12N015/00 C07H021/04.

157. 6093692 . 25 Sep 97; 25 Jul 00. Method and compositions for lipidization of hydrophilic molecules. Shen; Wei-Chiang, et al. 514/3; 514/19 514/2 514/23 514/9 530/300 530/303 530/307 530/315 530/317 530/331 530/333 530/350. A61K038/28.

158. 6087489 . 02 Jun 98; 11 Jul 00. Antisense oligonucleotide modulation of human thymidylate synthase expression. Dean; Nicholas M.. 536/24.5; 435/325 435/366 435/6 536/23.1. C07H021/04 C12Q001/68.

159. 6087173 . 09 Sep 99; 11 Jul 00. Antisense modulation of X-linked inhibitor of apoptosis expression. Bennett; C. Frank, et al. 435/375; 435/6 536/23.1 536/24.1 536/24.5. C07H021/04 C07H021/02 C12Q001/68.

160. 6080725 . 13 Apr 99; 27 Jun 00. Immunostimulating and vaccine compositions employing saponin analog adjuvants and uses thereof. Marciani; Dante J.. 514/26; 424/184.1 514/25 536/4.1 536/5. A61K031/705 A61K039/00.

161. 6080580 . 05 Oct 98; 27 Jun 00. Antisense oligonucleotide modulation of tumor necrosis factor-.alpha. (TNF-.alpha.) expression. Baker; Brenda F., et al. 435/375; 435/366 435/6 435/91.1 536/23.1 536/24.31 536/24.33 536/24.5. C07H021/04 C12Q001/68 C12N015/85.

☐ 162. 6080546 . 23 Jul 99; 27 Jun 00. Antisense modulation of MEKK5 expression. Monia; Brett P., et al. 435/6; 435/325 435/366 435/91.1 536/23.1 536/24.5. C12Q001/68 C07H021/04 C12N015/85 C12P019/34.

☐ 163. 6077709 . 29 Sep 98; 20 Jun 00. Antisense modulation of Survivin expression. Bennett; C. Frank, et al. 435/375; 435/377 435/455 435/6 536/23.1 536/24.1 536/24.5. C07H021/04 C07H021/02 C12Q001/68.

☐ 164. 6077672 . 28 Aug 98; 20 Jun 00. Antisense modulation of TRADD expression. Monia; Brett P., et al. 435/6; 536/24.1 536/24.5. C07H021/04 C07H021/02.

☐ 165. 6074645 . 11 May 98; 13 Jun 00. Immuno-reactive peptide CTL epitopes of human cytomegalovirus. Diamond; Don Jeffrey, et al. 424/186.1; 424/204.1 424/230.1 424/231.1 424/93.1 424/93.71 514/15 530/328. A61K039/245 A61K039/12 A61K038/04 A61K035/26.

☐ 166. 6069008 . 25 Nov 98; 30 May 00. Antisense modulation of NF-kappa-B p65 subunit expression. Bennett; C. Frank, et al. 435/375; 435/366 435/6 435/91.1 536/23.1 536/24.31 536/24.33 536/24.5. C07H021/04 C12Q001/68 C12N015/85.

☐ 167. 6066500 . 25 Jun 99; 23 May 00. Antisense modulation of Beta catenin expression. Bennett; C. Frank, et al. 435/375; 435/366 435/6 435/91.1 536/23.1 536/24.31 536/24.33 536/24.5. C07H021/04 C12Q001/68 C12N015/85.

☐ 168. 6063787 . 26 Jan 98; 16 May 00. Methods for the treatment of psoriasis and genital warts. Chu; Chung K., et al. 514/274; 544/317. A61K031/505 C07D239/47.

☐ 169. 6063626 . 24 Jun 99; 16 May 00. Antisense inhibition of G-alpha-i3 expression. Cowsert; Lex M.. 435/375; 435/325 435/366 435/6 435/91.1 536/23.1 536/24.33 536/24.5. C12Q001/68 C12N015/00 C07H021/04.

☐ 170. 6054440 . 24 Jun 99; 25 Apr 00. Antisense inhibition of Jun N-terminal Kinase Kinase-2 expression. Monia; Brett P., et al. 514/44;. C12N015/85.

☐ 171. 6054316 . 25 Jun 99; 25 Apr 00. Antisense inhibition of ETs-2 expression. Baker; Brenda F., et al. 435/375; 536/24.5. C12N015/85.

☐ 172. 6046321 . 09 Apr 99; 04 Apr 00. Antisense modulation of G-alpha-i1 expression. Cowsert; Lex M.. 536/24.5; 435/325 435/375 435/6 435/91.1 536/23.1 536/24.3 536/24.31 536/24.33. C07H021/04 C12N015/85 C12N015/86 C12Q001/68.

☐ 173. 6046320 . 09 Apr 99; 04 Apr 00. Antisense modulation of MDMX expression. Monia; Brett P., et al. 536/24.5; 435/325 435/375 435/6 435/91.1 536/23.1 536/23.2 536/24.3 536/24.33. C07H021/04 C07H021/02 C12Q001/68 C12N015/85 C12N015/86.

☐ 174. 6046049 . 19 Jul 99; 04 Apr 00. Antisense modulation of PI3 kinase p110 delta expression. Monia; Brett P., et al. 435/375; 435/366 435/6 435/91.1 536/23.1 536/24.31 536/24.33 536/24.5. C07H021/04 C12Q001/68 C12N015/00.

☐ 175. 6043268 . 24 Dec 96; 28 Mar 00. Agent for treatment of viral infections. Maeda; Hiroshi, et al.

514/401; 514/12 514/21 514/634. A01N043/50 A01N037/52 A61K038/00.

☐ 176. 6043091 . 19 Jul 99; 28 Mar 00. Antisense modulation of liver glycogen phosphorylase expression. Monia; Brett P., et al. 435/375; 435/366 435/6 435/91.1 536/23.1 536/24.31 536/24.33 536/24.5. C07H021/04 C12Q001/68 C12N015/85.

☐ 177. 6043090 . 23 Mar 99; 28 Mar 00. Antisense inhibition of human Akt-2 expression. Monia; Brett P., et al. 435/375; 435/325 435/366 435/455 435/6 435/91.1 536/23.1 536/24.3 536/24.31 536/24.33 536/24.5. C12Q001/68 C12N015/00 C07H021/04.

☐ 178. 6043045 . 29 May 98; 28 Mar 00. Screening methods for the identification of novel antibiotics. Hoch; James A., et al. 435/17; 435/176 435/177 435/23 435/24 435/31 435/32 435/4 435/69.2 435/7.2 435/7.21 435/968. C12Q001/50.

☑ 179. 6041253 . 01 Apr 96; 21 Mar 00. Effect of electric field and ultrasound for transdermal drug delivery. Kost; Joseph, et al. 604/20; 600/578 604/22. A61N001/30.

☐ 180. 6040179 . 25 Jun 99; 21 Mar 00. Antisense inhibition of G-alpha-i2 expression. Cowsert; Lex M.. 435/375; 435/366 435/6 435/91.1 536/23.1 536/24.31 536/24.33 536/24.5. C07H021/04 C12Q001/68 C12N015/85.

☐ 181. 6040178 . 23 Feb 99; 21 Mar 00. Antisense inhibition of Smad5 expression. Monia; Brett P., et al. 435/375; 435/325 435/366 435/455 435/6 435/91.1 536/23.1 536/24.31 536/24.33 536/24.5. C07H021/04 C12Q001/68 C12N015/00.

☐ 182. 6037176 . 25 Jun 99; 14 Mar 00. Antisense inhibition of integrin beta 3 expression. Bennett; C. Frank, et al. 435/375; 435/325 435/366 435/455 435/6 435/91.1 536/23.1 536/24.31 536/24.33 536/24.5. C12Q001/68 C12N015/00 C07H021/04.

☐ 183. 6037142 . 23 Feb 99; 14 Mar 00. Antisense inhibition of SMAD2 expression. Monia; Brett P., et al. 435/375; 435/325 435/366 435/455 435/6 435/91.1 536/23.1 536/24.31 536/24.33 536/24.5. C12Q001/68 C12N015/00 C07H021/04.

☐ 184. 6033910 . 19 Jul 99; 07 Mar 00. Antisense inhibition of MAP kinase kinase 6 expression. Monia; Brett P., et al. 435/375; 435/325 435/366 435/6 435/91.1 536/23.1 536/24.31 536/24.33 536/24.5. C07H021/04 C12N015/00 C12Q001/68.

☐ 185. 6030837 . 03 Aug 99; 29 Feb 00. Antisense inhibition of PEPCK-mitochondrial expression. McKay; Robert, et al. 435/375; 435/325 435/366 435/6 435/91.1 536/23.1 536/24.31 536/24.33 536/24.5. C12Q001/68 C07H021/04 C12M015/00.

☐ 186. 6030786 . 18 Sep 98; 29 Feb 00. Antisense modulation of RhoC expression. Cowsert; Lex M.. 435/6; 435/325 435/366 435/91.1 536/23.1 536/24.31 536/24.5. C12Q001/68 C12P019/34 C07H021/04 C12N015/85.

☐ 187. 6025198 . 25 Jun 99; 15 Feb 00. Antisense modulation of Ship-2 expression. Bennett; C. Frank, et al. 435/375; 435/366 435/6 435/91.1 536/23.1 536/24.31 536/24.33 536/24.5. C07H021/04 C12Q001/68 C12N015/00.

---

188. 6022876. 21 Oct 97; 08 Feb 00. L-.beta.-dioxolane uridine analogs and methods for treating and preventing Epstein-Barr virus infections. Chu; Chung K., et al. 514/274; 514/50 514/51 514/86 544/276. A61K031/505 A01N043/54.

---

189. 6020199. 21 Jul 99; 01 Feb 00. Antisense modulation of PTEN expression. Monia; Brett P., et al. 435/375; 435/366 435/6 435/91.1 536/23.1 536/24.31 536/24.33 536/24.5. C07H021/04 C12Q001/68 C12N015/00.

---

190. 6020198. 25 Sep 98; 01 Feb 00. Antisense modulation of RIP-1 expression. Bennett; C. Frank, et al. 435/375; 435/6 536/23.1 536/24.1 536/24.5. C07H021/04 C07H021/02 C12N015/11.

---

191. 6015712. 19 Jul 99; 18 Jan 00. Antisense modulation of FADD expression. Monia; Brett P., et al. 435/375; 435/6 435/91.1 435/91.3 536/23.1 536/24.1 536/24.5. C07H021/04 C12Q001/68 C12N015/00.

---

192. 6013788. 09 Apr 99; 11 Jan 00. Antisense modulation of Smad3 expression. Monia; Brett P., et al. 536/24.5; 435/325 435/375 435/6 435/91.1 435/91.31 536/23.1 536/23.2 536/24.3 536/24.33. C07H021/04 C07H021/02 C12N015/11 A61K048/00 A61K035/00.

---

193. 6013787. 23 Feb 99; 11 Jan 00. Antisense modulation of Smad4 expression. Monia; Brett P., et al. 536/24.5; 435/6 435/91.1 536/23.1 536/24.3 536/24.33. C07H021/04 A61K048/00 C12N015/11 C12Q001/68.

---

194. 6013522. 23 Feb 99; 11 Jan 00. Antisense inhibition of human Smad1 expression. Monia; Brett P., et al. 435/375; 435/325 435/366 435/455 435/6 435/91.1 536/23.1 536/24.31 536/24.33 536/24.5. C12Q001/68 C12N015/00 C07H021/04.

---

195. 6012969. 07 Nov 96; 11 Jan 00. Abrasive member for very high return loss optical connector ferrules. Ryoke; Katsumi, et al. 451/41; 451/28 451/42. B24B001/00.

---

196. 6010906. 21 Jul 99; 04 Jan 00. Antisense modulation of Jun N-terminal kinase kinase-1 expression. Ward; Donna T., et al. 435/375; 435/6 435/91.1 435/91.3 536/23.1 536/24.1 536/24.5. C07H021/04 C12Q001/68 C12N015/00.

---

197. 6008344. 23 Feb 99; 28 Dec 99. Antisense modulation of phospholipase A2 group IV expression. Bennett; C. Frank, et al. 536/24.5; 435/325 435/6 435/91.1 435/91.31 536/23.1 536/23.2 536/24.3. C07H021/02 C07H021/04 C12Q001/68 A61K048/00.

---

198. 6008048. 04 Dec 98; 28 Dec 99. Antisense inhibition of EGR-1 expression. Monia; Brett P., et al. 435/375; 435/366 435/6 435/91.1 536/23.1 536/24.31 536/24.33 536/24.5. C12Q001/68 C07H021/04 C12N015/00.

---

199. 6007995. 26 Jun 98; 28 Dec 99. Antisense inhibition of TNFR1 expression. Baker; Brenda F., et al. 435/6; 435/325 435/366 435/377 435/91.1 536/23.1 536/24.31 536/24.5. C07H021/04 C12Q001/68 C12N015/85 C12N015/11.

---

200. 6004814. 25 Sep 98; 21 Dec 99. Antisense modulation of CD71 expression. Bennett; C. Frank, et al. 435/375; 435/6 536/23.1 536/24.1 536/24.5. C07H021/04 C07H021/02 C12N015/11.

09/108 673
AH# 34

1. Document ID: US 20010007025 A1

L8: Entry 1 of 75
File: PGPB
Jul 5, 2001

PGPUB-DOCUMENT-NUMBER: 20010007025
PGPUB-FILING-TYPE: new-utility
DOCUMENT-IDENTIFIER: US 20010007025 A1

TITLE: Antisense modulation of bcl-x expression

PUBLICATION-DATE: July 5, 2001
US-CL-CURRENT: 536/24.5; 435/375, 435/377, 435/455, 514/44, 536/24.1

APPL-NO: 09/ 734846
DATE FILED: December 12, 2000

RELATED-US-APPL-DATA:

RLAN	RLFD	RLPC	RLKC	RLAC
09734846	Dec 12, 2000	GRANTED	A1	US
09323743	Jun 2, 1999	GRANTED		US
6214986	Jun 2, 1999	GRANTED		US
09323743	Mar 26, 1999			US
09277020	Jun 2, 1999			US
6210892	Oct 7, 1998			US
09323743				US
09167921				US
6172216				

IN: Bennett, C. Frank, Dean, Nicholas M., Monia, Brett P., Nickoloff, Brian J., Zhang, Qing Qing

AB: Compositions and methods are provided for modulating the expression of bcl-x. Antisense compounds, particularly antisense oligonucleotides, targeted to nucleic acids encoding bcl-x are preferred. Methods of using these compounds for modulation of bcl-x expression and for treatment of diseases associated with expression of bcl-x are also provided. Methods of sensitizing cells to apoptotic stimuli are also provided.

L8: Entry 1 of 75
File: PGPB
Jul 5, 2001

DOCUMENT-IDENTIFIER: US 20010007025 A1

TITLE: Antisense modulation of bcl-x expression

DETX:
[0075] Pharmaceutical compositions and/or formulations comprising the oligonucleotides of the present invention may also include penetration enhancers in order to enhance the alimentary delivery of the oligonucleotides. Penetration enhancers may be classified as belonging to one of five broad categories, i.e., fatty acids, bile salts, chelating agents, surfactants and non-surfactants (Lee et al., Critical Reviews in Therapeutic Drug Carrier Systems, 1991, 8, 91-192; Muranishi, Critical Reviews in Therapeutic Drug Carrier Systems, 1990, 7, 1-33). One or more penetration enhancers from one or more of these broad categories may be included.

2. Document ID: US 6258790 B1

L8: Entry 2 of 75
File: USPT
Jul 10, 2001

US-PAT-NO: 6258790
DOCUMENT-IDENTIFIER: US 6258790 B1
TITLE: Antisense modulation of integrin .alpha.4 expression
DATE-ISSUED: July 10, 2001

US-CL-CURRENT: 514/44; 435/375, 435/378, 536/24.5

APPL-NO: 9/ 377309
DATE FILED: August 19, 1999

PARENT-CASE:
INTRODUCTION This application is a continuation-in-part of U.S. Ser. No. 09/166,203 filed Oct. 5, 1998, now U.S. Pat. No. 5,968,826.

IN: Bennett; C. Frank, Condon; Thomas P., Cowsert; Lex M.

AB: Compositions and methods are provided for modulating the expression of integrin .alpha.4. Antisense compounds, particularly antisense oligonucleotides, targeted to nucleic acids encoding integrin .alpha.4 are preferred. Methods of using these compounds for modulating integrin .alpha.4 expression and for treatment of diseases associated with expression of integrin .alpha.4 are also provided.

L8: Entry 2 of 75
File: USPT
Jul 10, 2001

DOCUMENT-IDENTIFIER: US 6258790 B1
TITLE: Antisense modulation of integrin .alpha.4 expression

BSPR:
Pharmaceutical compositions and/or formulations comprising the oligonucleotides of the present invention may also include penetration enhancers in order to enhance the alimentary delivery of the oligonucleotides. Penetration enhancers may be classified as belonging to one of five broad categories, i.e., fatty acids, bile salts, chelating agents, surfactants and

non-surfactants (Lee et al., Critical Reviews in Therapeutic Drug Carrier Systems, 1991, 8, 91-192; Muranishi, Critical Reviews in Therapeutic Drug Carrier Systems, 1990, 7, 1-33). One or more penetration enhancers from one or more of these broad categories may be included. Penetration enhancers are described in pending U.S. patent application Ser. No. 08/886,829, filed on Jul. 1, 1997, and pending U.S. patent application Ser. No. 08/961,469, filed on Oct. 31, 1997, both of which are commonly owned with the instant application and both of which are herein incorporated by reference.

3. Document ID: US 6258601 B1

L8: Entry 3 of 75

File: USPT

Jul 10, 2001

US-PAT-NO: 6258601
DOCUMENT-IDENTIFIER: US 6258601 B1
TITLE: Antisense modulation of ubiquitin protein ligase expression
DATE-ISSUED: July 10, 2001

US-CL-CURRENT: 435/375; 435/366, 435/6, 435/91.1, 536/23.1, 536/24.31, 536/24.33, 536/24.5

APPL-NO: 9/ 657481
DATE FILED: September 7, 2000

IN: Monia; Brett P., Cowsert; Lex M.

AB: Antisense compounds, compositions and methods are provided for modulating the expression of ubiquitin protein ligases WWP1 and WWP2. The compositions comprise antisense compounds, particularly antisense oligonucleotides, targeted to nucleic acids encoding ubiquitin protein ligases WWP1 and WWP2. Methods of using these compounds for modulation of ubiquitin protein ligases WWP1 and WWP2 expression and for treatment of diseases associated with expression of ubiquitin protein ligases WWP1 and WWP2 are provided.

L8: Entry 3 of 75

File: USPT

Jul 10, 2001

DOCUMENT-IDENTIFIER: US 6258601 B1
TITLE: Antisense modulation of ubiquitin protein ligase expression

BSPR:
Compositions and formulations for oral administration include powders or granules, microparticulates, nanoparticulates, suspensions or solutions in water or non-aqueous media, capsules, gel capsules, sachets, tablets or minitablets. Thickeners, flavoring agents, diluents, emulsifiers, dispersing aids or binders may be desirable. Preferred oral formulations are those in which oligonucleotides of the invention are administered in conjunction with one or more penetration enhancers surfactants and chelators. Preferred surfactants include fatty acids and/or esters or salts thereof, bile acids and/or salts thereof. Prefered bile acids/salts include chenodeoxycholic acid (CDCA) and ursodeoxychenodeoxycholic acid (UDCA), cholic acid, dehydrocholic acid, deoxycholic acid, glucholic acid, glycholic acid, glycodeoxycholic acid, taurocholic acid, taurodeoxycholic acid, sodium tauro-24,25-dihydro-fusidate, sodium glycodihydrofusidate. Prefered fatty acids include arachidonic acid, undecanoic acid, oleic acid, lauric acid, caprylic acid, capric acid, myristic acid, palmitic acid, stearic acid, linoleic acid, linolenic acid, dicaprate, tricaprate, monoolein, dilaurin, glyceryl 1-monocaprate, 1-dodecylazacycloheptan-2-one, an acylcarnitine, an acylcholine, or a monoglyceride, a diglyceride or a pharmaceutically acceptable salt thereof (e.g. sodium). Also prefered are combinations of penetration enhancers, for example, fatty acids/salts in combination with bile acids/salts. A particularly prefered combination is the sodium salt of lauric acid, capric acid and UDCA. Further penetration enhancers include polyoxyethylene-9-lauryl ether, polyoxyethylene-20-cetyl ether. Oligonucleotides of the invention may be delivered orally in granular form including sprayed dried particles, or complexed to form micro or nanoparticles.
Oligonucleotide complexing agents include poly-amino acids; polyimines; polyacrylates; polyalkylacrylates, polyoxethanes, polyalkylcyanoacrylates; cationized gelatins, albumins, starches, acrylates, polyethyleneglycols (PEG) and starches; polyalkylcyanoacrylates; DEAE-derivatized polyimines, pollulans, celluloses and starches. Particularly preferred complexing agents include chitosan, N-trimethylchitosan, poly-L-lysine, polyhistidine, polyornithine, polyspermines, protamine, polyvinylpyridine, polythiodiethylaminomethylethylene P(TDAE), polyaminostyrene (e.g. p-amino), poly(methylcyanoacrylate), poly(ethylcyanoacrylate), poly(butylcyanoacrylate), poly(isobutylcyanoacrylate), poly(isohexylcynaoacrylate), DEAE-methacrylate, DEAE-hexylacrylate, DEAE-acrylamide, DEAE-albumin and DEAE-dextran, polymethylacrylate, polyhexylacrylate, poly(D,L-lactic acid), poly(DL-lactic-co-glycolic acid (PLGA), alginate, and polyethyleneglycol (PEG). Oral formulations for oligonucleotides and their preparation are described in detail in U.S. application Ser. Nos. 08/886,829 (filed Jul. 1, 1997), 09/108,673 (filed Jul. 1, 1998), 09/256,515 (filed Feb. 23, 1999), 09/082,624 (filed May 21, 1998) and 09/315,298 (filed May 20, 1999) each of which is incorporated herein by reference in their entirety.

4. Document ID: US 6238921 B1

L8: Entry 4 of 75

File: USPT

May 29, 2001

US-PAT-NO: 6238921
DOCUMENT-IDENTIFIER: US 6238921 B1
TITLE: Antisense oligonucleotide modulation of human mdm2 expression
DATE-ISSUED: May 29, 2001

US-CL-CURRENT: 435/375; 435/371, 435/6, 435/91.1, 536/23.1, 536/24.31, 536/24.33, 536/24.5

APPL-NO: 9/ 048810
DATE FILED: March 26, 1998

IN: Miraglia; Loren J., Nero; Pamela, Graham; Mark J., Monia; Brett P.

AB: Compounds, compositions and methods are provided for inhibiting the expression of
human mdm2. The compositions comprise antisense oligonucleotides targeted to nucleic acids
encoding mdm2. Methods of using these oligonucleotides for inhibition of mdm2 expression and
for treatment of diseases such as cancers associated with overexpression of mdm2 are
provided.

L8: Entry 4 of 75
File: USPT
May 29, 2001

DOCUMENT-IDENTIFIER: US 6238921 B1
TITLE: Antisense oligonucleotide modulation of human mdm2 expression

BSPR:
Pharmaceutical compositions comprising the oligonucleotides of the present invention may include
penetration enhancers in order to enhance the alimentary delivery of the oligonucleotides.
Penetration enhancers may be classified as belonging to one of five broad categories, i.e., fatty
acids, bile salts, chelating agents, surfactants and non-surfactants (Lee et al., Critical
Reviews in Therapeutic Drug Carrier Systems, 1991, 8:91-192; Muranishi, Critical Reviews in
Therapeutic Drug Carrier Systems, 1990, 7:1). One or more penetration enhancers from one or more
of these broad categories may be included. Compositions comprising oligonucleotides and
penetration enhancers are disclosed in co-pending U.S. patent application Ser. No. 08/886,829 to
Teng et al., filed Jul. 1, 1997, which is herein incorporated by reference in its entirety.

5. Document ID: US 6235723 B1

L8: Entry 5 of 75
File: USPT
May 22, 2001

US-PAT-NO: 6235723
DOCUMENT-IDENTIFIER: US 6235723 B1
TITLE: Antisense oligonucleotide modulation of human protein kinase C-.delta. expression
DATE-ISSUED: May 22, 2001

US-CL-CURRENT: 514/44; 435/455, 435/6, 435/91.1, 536/23.1, 536/24.5

APPL-NO: 9/ 313930
DATE FILED: May 18, 1999

PARENT-CASE:
This application is a continuation-in-part of U.S. patent application Ser. No. 08/481,072, filed
Jun. 7, 1995, now issued as U.S. Pat. No. 5,916,807; U.S. patent application Ser. No. 08/488,177,
filed Jun. 7, 1995, now issued as U.S. Pat. No. 5,885,970; U.S. patent application Ser. No.
08/481,066, filed Jun. 7, 1995, now issued as U.S. Pat. No. 5,959,096; U.S. patent application
Ser. No. 08/478,178, filed Jun. 7, 1995, now issued as U.S. Pat. No. 5,882,927; and U.S. patent
application Ser. No. 08/664,336, filed Jun. 14, 1996, now issued as U.S. Pat. No. 5,922,686,
which are all continuations-in-part of U.S. patent application Ser. No. 08/089,996, filed Jul. 9,
1993, now issued as U.S. Pat. No. 5,703,054, which in turn is a continuation-in-part of a U.S.
patent application Ser. No. 07/852,852, filed Mar. 16, 1992, now abandoned. This application is
also a continuation-in-part of U.S. patent application Ser. No. 08/601,269, filed Feb. 14, 1996,
now issued as U.S. Pat. No. 5,948,898, which is a continuation-in-part of U.S. patent application
Ser. No. 08/478,178, filed Jun. 7, 1995, and now issued as U.S. Pat. No. 5,882,927, which is a
continuation-in-part of U.S. patent application Ser. No. 08/089,996, filed Jul. 9, 1993, now
issued as U.S. Pat. No. 5,703,054, which in turn is a continuation-in-part of U.S. patent
application Ser. No. 07/852,852 filed Mar. 16, 1992, now abandoned.

IN: Dean; Nicholas M.

AB: Compositions and methods are provided for modulating the expression of
PKC-.delta. and for the treatment and diagnosis of diseases associated with protein kinase
C-.delta.. Methods of treating animals suffering from disease amenable to therapeutic
intervention by modulating protein kinase C-.delta. expression with an oligonucleotide
specifically hybridizable with RNA or DNA corresponding to PKC-.delta. are disclosed.
Methods of modulating the expression of TNF-a using the compositions of the present
invention are also provided.

L8: Entry 5 of 75
File: USPT
May 22, 2001

DOCUMENT-IDENTIFIER: US 6235723 B1
TITLE: Antisense oligonucleotide modulation of human protein kinase C-.delta. expression

BSPR:
Pharmaceutical compositions comprising the oligonucleotides of the present invention may include
penetration enhancers in order to enhance the alimentary delivery of the oligonucleotides.
Penetration enhancers may be classified as belonging to one of five broad categories, i.e., fatty
acids, bile salts, chelating agents, surfactants and non-surfactants (Lee et al., Critical
Reviews in Therapeutic Drug Carrier Systems 1991, 8, 91-192; Muranishi, Critical Reviews in
Therapeutic Drug Carrier Systems 1990, 7, 1-33). One or more penetration enhancers from one or
more of these broad categories may be included.

6. Document ID: US 6232296 B1

L8: Entry 6 of 75
File: USPT

May 15, 2001

US-PAT-NO: 6232296
DOCUMENT-IDENTIFIER: US 6232296 B1
TITLE: Inhibition of complement activation and complement modulation by use of modified
oligonucleotides
DATE-ISSUED: May 15, 2001

US-CL-CURRENT: 514/44; 435/325, 435/363, 435/375, 435/6, 435/91.1, 536/23.1

APPL-NO: 9/ 409816
DATE FILED: September 30, 1999

IN: Henry; Scott

AB: Oligomeric compounds are described wherein said compounds comprise modified
oligonucleotides (P.dbd.S) which modulate complement activity. Methods and processes for the
uses of such oligomeric compounds are also described. The oligomeric compounds may be used
therapeutically to modulate complement activity in order to inhibit undesirable complement
mediated events, such as for example, to treat inflammation, and/or to activate complement.

L8: Entry 6 of 75
File: USPT
May 15, 2001

DOCUMENT-IDENTIFIER: US 6232296 B1
TITLE: Inhibition of complement activation and complement modulation by use of modified
oligonucleotides

DEPR:
Pharmaceutical compositions comprising the oligonucleotides of the present invention may include
penetration enhancers in order to enhance the alimentary delivery of the oligonucleotides.
Penetration enhancers may be classified as belonging to one of five broad categories, i.e., fatty
acids, bile salts, chelating agents, surfactants and non-surfactants (Lee et al., Critical
Reviews in Therapeutic Drug Carrier Systems, 1991, 8:91-192; Muranishi, Critical Reviews in
Therapeutic Drug Carrier Systems, 1990, 7:1). One or more penetration enhancers from one or more
of these broad categories may be included.

7. Document ID: US 6228642 B1

L8: Entry 7 of 75
File: USPT
May 8, 2001

US-PAT-NO: 6228642
DOCUMENT-IDENTIFIER: US 6228642 B1
TITLE: Antisense oligonucleotide modulation of tumor necrosis factor-(.alpha.) (TNF-.alpha.)
expression
DATE-ISSUED: May 8, 2001

US-CL-CURRENT: 435/375; 435/366, 435/6, 435/91.1, 536/23.1, 536/24.31, 536/24.33, 536/24.5

APPL-NO: 9/ 313932
DATE FILED: May 18, 1999

PARENT-CASE:
INTRODUCTION This application is a continuation-in-part of U.S. application Ser. No. 09/166,186
filed Oct. 5, 1998, now U.S. Pat. No. 6,080,580.

IN: Baker; Brenda F., Bennett; C. Frank, Butler; Madeline M., Shanahan, Jr.; William
R.

AB: Compositions and methods are provided for inhibiting the expression of human
tumor necrosis factor-.alpha. (TNF-.alpha.). Antisense oligonucleotides targeted to nucleic
acids encoding TNF-.alpha. are preferred. Methods of using these oligonucleotides for
inhibition of TNF-.alpha. expression and for treatment of diseases, particularly
inflammatory and autoimmune diseases, associated with overexpression of TNF-.alpha. are
provided.

L8: Entry 7 of 75
File: USPT
May 8, 2001

DOCUMENT-IDENTIFIER: US 6228642 B1
TITLE: Antisense oligonucleotide modulation of tumor necrosis factor-(.alpha.) (TNF-.alpha.)
expression

BSPR:
Pharmaceutical compositions comprising the oligonucleotides of the present invention may include
penetration enhancers in order to enhance the alimentary delivery of the oligonucleotides.
Penetration enhancers may be classified as belonging to one of five broad categories, i.e., fatty
acids, bile salts, chelating agents, surfactants and non-surfactants (Lee et al., Critical
Reviews in Therapeutic Drug Carrier Systems 1991, 8, 91-192; Muranishi, Critical Reviews in
Therapeutic Drug Carrier Systems 1990, 7, 1-33). One or more penetration enhancers from one or
more of these broad categories may be included. Various fatty acids and their derivatives which
act as penetration enhancers include, for example, oleic acid, lauric acid, capric acid, myristic
acid, palmitic acid, stearic acid, linoleic acid, linolenic acid, dicaprate, tricaprate,
recinleate, monoolein (a.k.a. 1-monooleoyl-rac-glycerol), dilaurin, caprylic acid, arachidonic
acid, glyceryl 1-monocaprate, 1-dodecylazacycloheptan-2-one, acylcarnitines, acylcholines, mono-
and di-glycerides and physiologically acceptable salts thereof (i.e., oleate, laurate, caprate,
myristate, palmitate, stearate, linoleate, etc.) (Lee et al., Critical Reviews in Therapeutic
Drug Carrier Systems 1991, page 92; Muranishi, Critical Reviews in Therapeutic Drug Carrier
Systems 1990, 7, 1; El-Hariri et al., J. Pharm. Pharmacol. 1992 44, 651-654).

8. Document ID: US 6221850 B1

L8: Entry 8 of 75

File: USPT

Apr 24, 2001

US-PAT-NO: 6221850
DOCUMENT-IDENTIFIER: US 6221850 B1
TITLE: Antisense oligonucleotide compositions and methods for the modulation of JNK proteins
DATE-ISSUED: April 24, 2001

US-CL-CURRENT: 514/44; 435/183, 435/194, 435/320.1, 435/325, 435/371, 435/91.1, 536/23.1, 536/24.31, 536/24.5

APPL-NO: 9/ 130616
DATE FILED: August 7, 1998

PARENT-CASE:
INTRODUCTION This application is a continuation-in-part of U.S. application Ser. No. 08/910,629 filed Aug. 13, 1997 now U.S. Pat. No. 5,877,309.

IN: McKay; Robert, Dean; Nicholas, Monia; Brett P., Nero; Pamela Scott, Gaarde; William A.

AB: Compositions and methods for the treatment and diagnosis of diseases or disorders amenable to treatment through modulation of expression of a gene encoding a Jun N-terminal kinase (JNK protein) are provided. Oligonucleotide are herein provided which are specifically hybridizable with nucleic acids encoding JNK1, JNK2 and JNK3, as well as other JNK proteins and specific isoforms thereof. Methods of treating animals suffering from diseases or disorders amenable to therapeutic intervention by modulating the expression of one or more JNK proteins with such oligonucleotide are also provided. Methods for the treatment and diagnosis of diseases or disorders associated with aberrant expression of one or more JNK proteins are also provided. The invention is thus directed to compositions for modulating, diagnostic methods for detecting, and therapeutic methods for inhibiting, the hyperproliferation of cells and formation, development and maintenance of tumors.

L8: Entry 8 of 75

File: USPT

Apr 24, 2001

DOCUMENT-IDENTIFIER: US 6221850 B1
TITLE: Antisense oligonucleotide compositions and methods for the modulation of JNK proteins

BSPR:
Pharmaceutical compositions comprising the oligonucleotides of the present invention may also include penetration enhancers in order to enhance the alimentary delivery of the oligonucleotides. Penetration enhancers may be classified as belonging to one of five broad categories, i.e., fatty acids, bile salts, chelating agents, surfactants and non-surfactants (Lee et al., Critical Reviews in Therapeutic Drug Carrier Systems, 1991, 8:91-192; Muranishi, Critical Reviews in Therapeutic Drug Carrier Systems, 1990, 7:1).

9. Document ID: US 6214986 B1

L8: Entry 9 of 75

File: USPT

Apr 10, 2001

US-PAT-NO: 6214986
DOCUMENT-IDENTIFIER: US 6214986 B1
TITLE: Antisense modulation of bcl-x expression
DATE-ISSUED: April 10, 2001

US-CL-CURRENT: 536/24.5; 435/325, 435/375, 435/6, 435/91.1, 536/23.1, 536/24.3, 536/24.33

APPL-NO: 9/ 323743
DATE FILED: June 2, 1999

PARENT-CASE:
The present application is a continuation-in-part of U.S. patent application 09/277,020, filed Mar. 26, 1999 and of U.S. patent application 09/167,921, filed Oct. 7, 1998.

IN: Bennett; C. Frank, Dean; Nicholas M., Monia; Brett P., Nickoloff; Brian J., Zhang; QingQing

AB: Compositions and methods are provided for modulating the expression of bcl-x.
Antisense compounds, particularly antisense oligonucleotides, targeted to nucleic acids encoding bcl-x are preferred. Methods of using these compounds for modulation of bcl-x expression and for treatment of diseases associated with expression of bcl-x are also provided. Methods of sensitizing cells to apoptotic stimuli are also provided.

L8: Entry 9 of 75

File: USPT

Apr 10, 2001

DOCUMENT-IDENTIFIER: US 6214986 B1
TITLE: Antisense modulation of bcl-x expression

BSPR:
Pharmaceutical compositions and/or formulations comprising the oligonucleotides of the present invention may also include penetration enhancers in order to enhance the alimentary delivery of the oligonucleotides. Penetration enhancers may be classified as belonging to one of five broad categories, i.e., fatty acids, bile salts, chelating agents, surfactants and non-surfactants (Lee et al., Critical Reviews in Therapeutic Drug Carrier Systems, 1991, 8, 91-192; Muranishi, Critical Reviews in Therapeutic Drug Carrier Systems, 1990, 7, 1-33). One or more penetration enhancers from one or more of these broad categories may be included.

10. Document ID: US 6204055 B1

L8: Entry 10 of 75

File: USPT

Mar 20, 2001

US-PAT-NO: 6204055
DOCUMENT-IDENTIFIER: US 6204055 B1
TITLE: Antisense inhibition of Fas mediated signaling
DATE-ISSUED: March 20, 2001

US-CL-CURRENT: 435/375; 435/325, 435/91.1, 514/44, 536/23.1, 536/24.5

APPL-NO: 9/ 290640
DATE FILED: April 12, 1999

IN: Dean; Nicholas M., Marcusson; Eric G.

AB: Compounds, compositions and methods are provided for inhibiting Fas mediated
signaling. The compositions comprise antisense compounds targeted to nucleic acids encoding
Fas, FasL and Fap-1. Methods of using these antisense compounds for inhibition of Fas, FasL
and Fap-1 expression and for treatment of diseases, particularly autoimmune and inflammatory
diseases and cancers, associated with overexpression or constitutive activation of Fas, FasL
or Fap-1 are provided.

L8: Entry 10 of 75
File: USPT
Mar 20, 2001

DOCUMENT-IDENTIFIER: US 6204055 B1
TITLE: Antisense inhibition of Fas mediated signaling

BSPR:
Pharmaceutical compositions comprising the oligonucleotides of the present invention may include
penetration enhancers in order to enhance the alimentary delivery of the oligonucleotides.
Penetration enhancers may be classified as belonging to one of five broad categories, i.e., fatty
acids, bile salts, chelating agents, surfactants and non-surfactants (Lee et al., Critical
Reviews in Therapeutic Drug Carrier Systems 1991, 8, 91-192; Muranishi, Critical Reviews in
Therapeutic Drug Carrier Systems 1990, 7, 1-33). One or more penetration enhancers from one or
more of these broad categories may be included.

11. Document ID: US 6200562 B1

L8: Entry 11 of 75
File: USPT
Mar 13, 2001

US-PAT-NO: 6200562
DOCUMENT-IDENTIFIER: US 6200562 B1
TITLE: Method for reducing absorption of dietary oxalate using enzymes and microbes
DATE-ISSUED: March 13, 2001

US-CL-CURRENT: 424/94.5; 424/93.1, 435/193, 435/196, 435/232

APPL-NO: 9/ 083362
DATE FILED: May 22, 1998

PARENT-CASE:
CROSS-REFERENCE TO RELATED APPLICATION This application claims priority from provisional
application U.S. Ser. No. 60/047,473, filed May 23, 1997.

IN: Allison; Milton J., Sidhu; Harmeet

AB: This invention provides materials and procedures for the delivery of selected
strains of bacteria and/or oxalate-degrading enzymes to the intestinal tracts of persons who
are at increased risk for oxalate related disease because they have lost, or have inadequate
concentrations of these bacteria. The administration of these bacteria and/or the relevant
enzyme removes oxalate from the intestinal tract and thus reduces the amount of oxalate
available for absorption and reduces the risk for oxalate related disease.

L8: Entry 11 of 75
File: USPT
Mar 13, 2001

DOCUMENT-IDENTIFIER: US 6200562 B1
TITLE: Method for reducing absorption of dietary oxalate using enzymes and microbes

DEPR:
Strains of O. formigenes useful according to the subject invention have been characterized based
upon several tests, these include: patterns of cellular fatty acids, patterns of cellular
proteins, DNA and RNA (Jensen and Allison, 1995), and responses to oligonucleotide probes (Sidhu
et al. 1996). Two groups of these bacteria (Groups I and II, both existing within the present
description of the species) have been described. Strains used have been selected based upon
oxalate degrading capacity, and evidence of the ability to colonize the human intestinal tract.
Strains selected include representatives of both Groups I and II of the species.

12. Document ID: US 6197584 B1

L8: Entry 12 of 75
File: USPT
Mar 6, 2001

US-PAT-NO: 6197584
DOCUMENT-IDENTIFIER: US 6197584 B1
TITLE: Antisense modulation of CD40 expression
DATE-ISSUED: March 6, 2001

US-CL-CURRENT: 435/366; 435/325, 435/375, 435/6, 536/23.1, 536/24.31, 536/24.33, 536/24.5

APPL-NO: 9/ 071433
DATE FILED: May 1, 1998

IN: Bennett; C. Frank, Cowsert; Lex M.

AB: Antisense compounds, compositions and methods are provided for modulating the
expression of CD40. The compositions comprise antisense compounds, particularly antisense
oligonucleotides, targeted to nucleic acids encoding CD40. Methods of using these compounds
for modulation of CD40 expression and for treatment of diseases

associated with CD40 are
provided.

L8: Entry 12 of 75
File: USPT
Mar 6, 2001

DOCUMENT-IDENTIFIER: US 6197584 B1
TITLE: Antisense modulation of CD40 expression

BSPR:
Pharmaceutical compositions and/or formulations comprising the oligonucleotides of the present
invention may also include penetration enhancers in order to enhance the alimentary delivery of
the oligonucleotides. Penetration enhancers may be classified as belonging to one of five broad
categories, i.e., fatty acids, bile salts, chelating agents, surfactants and non-surfactants [Lee
et al., Critical Reviews in Therapeutic Drug Carrier Systems, 8, 91 (1991); Muranishi, Critical
Reviews in Therapeutic Drug Carrier Systems, 7, 1 (1990)]. One or more penetration enhancers from
one or more of these broad categories may be included. Penetration enhancers are described in
pending U.S. patent application Ser. No. 08/886,829, filed on Jul. 1, 1997, and pending U.S.
patent application Ser. No. 08/961,469, filed on Oct. 31, 1997, now U.S. Pat. No. 6,083,923, both
of which are commonly owned with the instant application and both of which are herein
incorporated by reference.

13. Document ID: US 6184212 B1

L8: Entry 13 of 75
File: USPT
Feb 6, 2001

US-PAT-NO: 6184212
DOCUMENT-IDENTIFIER: US 6184212 B1
TITLE: Antisense modulation of human mdm2 expression
DATE-ISSUED: February 6, 2001

US-CL-CURRENT: 514/44; 435/325, 435/375, 435/6, 435/91.1, 536/23.1, 536/24.3, 536/24.33, 536/24.5

APPL-NO: 9/ 280805
DATE FILED: March 26, 1999

PARENT-CASE:
This application is a continuation in-part of applicaton Ser. No. 09/048,810 filed Mar. 26, 1998.

IN: Miraglia; Loren J., Nero; Pamela, Graham; Mark J., Monia; Brett P., Cowsert; Lex
M.

AB: Compounds, compositions and methods are provided for inhibiting the expression of
human mdm2. The compositions include antisense compounds targeted to nucleic acids encoding
mdm2. Methods of using these oligonucleotides for inhibition of mdm2 expression and for
treatment of diseases such as cancers associated with overexpression of mdm2 are provided.

L8: Entry 13 of 75
File: USPT
Feb 6, 2001

DOCUMENT-IDENTIFIER: US 6184212 B1
TITLE: Antisense modulation of human mdm2 expression

BSPR:
Pharmaceutical compositions comprising the oligonucleotides of the present invention may include
penetration enhancers in order to enhance the alimentary delivery of the oligonucleotides.
Penetration enhancers may be classified as belonging to one of five broad categories, i.e., fatty
acids, bile salts, chelating agents, surfactants and non-surfactants (Lee et al., Critical
Reviews in Therapeutic Drug Carrier Systems, 1991, 8:91-192; Muranishi, Critical Reviews in
Therapeutic Drug Carrier Systems, 1990, 7:1). One or more penetration enhancers from one or more
of these broad categories may be included. Compositions comprising oligonucleotides and
penetration enhancers are disclosed in co-pending U.S. patent application Ser. No. 08/886,829 to
Teng et al., filed Jul. 1, 1997, which is herein incorporated by reference in its entirety.

14. Document ID: US 6180403 B1

L8: Entry 14 of 75
File: USPT
Jan 30, 2001

US-PAT-NO: 6180403
DOCUMENT-IDENTIFIER: US 6180403 B1
TITLE: Antisense inhibition of tumor necrosis factor alpha converting enzyme (TACE) expression
DATE-ISSUED: January 30, 2001

US-CL-CURRENT: 435/375; 435/325, 435/366, 435/6, 435/91.1, 536/23.1, 536/24.31, 536/24.33,
536/24.5

APPL-NO: 9/ 429093
DATE FILED: October 28, 1999

IN: Flournoy; Shin Cheng, Bennett; C. Frank

AB: Compositions and methods are provided for inhibiting the expression of human
tumor necrosis factor-.alpha.-converting enzyme (TACE). Antisense oligonucleotides targeted
to nucleic acids encoding TACE are preferred. Methods of using these oligonucleotides for
inhibition of TACE expression and for treatment of diseases, particularly inflammatory and
autoimmune diseases, associated with overexpression of TACE or TNF-.alpha. are provided.

L8: Entry 14 of 75
File: USPT
Jan 30, 2001

DOCUMENT-IDENTIFIER: US 6180403 B1
TITLE: Antisense inhibition of tumor necrosis factor alpha converting

enzyme (TACE) expression

DEPR:
Pharmaceutical compositions comprising the oligonucleotides of the present invention may include
penetration enhancers in order to enhance the alimentary delivery of the oligonucleotides.
Penetration enhancers may be classified as belonging to one of five broad categories, i.e., fatty
acids, bile salts, chelating agents, surfactants and non-surfactants (Lee et al., Critical
Reviews in Therapeutic Drug Carrier Systems 1991, 8, 91-192; Muranishi, Critical Reviews in
Therapeutic Drug Carrier Systems 1990, 7, 1-33). One or more penetration enhancers from one or
more of hese broad categories may be included.

15. Document ID: US 6180355 B1

L8: Entry 15 of 75
File: USPT
Jan 30, 2001

US-PAT-NO: 6180355
DOCUMENT-IDENTIFIER: US 6180355 B1
TITLE: Method for diagnosing and treating chronic pelvic pain syndrome
DATE-ISSUED: January 30, 2001

US-CL-CURRENT: 435/7.1; 435/7.8

APPL-NO: 9/ 306927
DATE FILED: May 7, 1999

PARENT-CASE:
CROSS-REFERENCE TO RELATED APPLICATION This application claims benefit of U.S. Provisional
Application No. 60/084,668, filed on May 7,1998.

IN: Alexander; Richard B., Ponniah; Sathibalan

AB: The present invention provides a superior method of diagnosing Chronic Pelvic
Pain Syndrome in men comprising measuring levels of cytokines in semen or components or
fractions of semen. The invention also provides a method of treating a condition associated
with elevated levels of a cytokine, such as TNF-.alpha., in semen or a component or fraction
thereof, comprising administering a therapeutically effective amount of an ant-cytokine
compound or composition, such as an anti-TNF-.alpha. compound or composition.

L8: Entry 15 of 75
File: USPT
Jan 30, 2001

DOCUMENT-IDENTIFIER: US 6180355 B1
TITLE: Method for diagnosing and treating chronic pelvic pain syndrome

DETL:
cream. There is further provided a method wherein said medicant includes an anti- inflammatory
steroid. In addition a method and medicant for treating cutaneous inflammatory disorders,
inhibiting the secretion of the pro-inflammatory cytokines TNF, IL- 1, IL6, IL-8 and the growth
factor GM-CSF is provided. 5,837,719 Nov. 17, 2,5-substituted aryl The present invention
addresses 2,5-substituted aryl pyrroles of the formula: [See 1998 pyrroles, compositions Original
Patent for Chemical Structure Diagram] or a pharmaceutically acceptable salts containing such
compounds thereof, as well as compositions containing such compounds and methods of treatment.
and methods of use The compounds are useful for treating Cytokine mediated diseases, which refers
to diseases or conditions in which excessive or unregulated production or activity of one or more
cytokines occurs. Interleukin-1 (IL-1), Interleukin-6 (IL-6), Interleukin-8 (IL-8) and Tumor
Necrosis Factor (TNF) are cytokines which are involved in immunoregulation and other
physiological conditions, such as inflammation. The compounds also have glucagon antagonist
activity. 5,837,293 Nov. 17, Use of interleukin-10 A method is provided for reducing an
inflammatory response in a mammal comprising 1998 analogs for antagonists to administering to a
mammal at risk of developing or afflicted with an inflammatory response treat endotoxin- or
characterized by substantially elevated levels of IL-1 alpha, IL-1 beta, IL-6, IL-8 and TNF
superantigen-induced alpha, an amount of IL-10 effective to substantially lower the levels of
such cytokines. toxicity 5,837,342 Nov. 17, Use of an interleukin-10 A method is provided for
toting a B cell mediated autoimmune disorder comprising 1998 antagonist to treat a B cell
administering an effective amount of an interleukin-10 antagonist. mediated autoimmune disorder
5,837,340 Nov. 17, Methods of treating This invention provides medical uses of a M-CSF,
particularly a method and composition 1998 allergies with M-CSF for treating inflammatory disease
and allergy using natural M-CSF or recombinant M-CSF or the derivatives thereof. 5,834,435 Nov.
10, Inhibition of TNF- alpha The pleiotropic effects of TNF alfa in a wide variety of mammalian
cell types is decreased 1998 pleiotropic and cytotoxic and treated by administering
glucosaminylmuramyl peptides with D-amino acid residue in a effects second or third position from
the proximal end. New methods for nonspecific oral, vaginal, and topic inhibition is proposed.
Inhibition of cytotoxicity of TNF alfa is also achieved. 5,834,419 Nov. 10, Chemokine binding
protein The present invention provides a method of use for a novel type chemokine binding 1998
and methods of use protein encoded by poxviruses and having amino acid sequence homology wth the
therefor myxoma virus T7 interferon- gamma receptor homolog against disease syndromes associated
with acute or chronic dysregulated inflammatory responses. 5,833,976 Nov 10, Use of
interleukin-10 (IL-10) A method is provided for treating septic shock or toxic shock that
comprises administering 1998 to treat endotoxin- or an effective amount of interleukin-10.
superantigen-induced toxicity 5,830,994 Nov. 3, Peptide derivatives of Provided is a compound
containing a peptide of at least 4 amino acids including the 1998 alpha-MSH and their following
sequence: His Phe* Arg, wherein Phe* represents phenylalanine or a application halogenated
derivative of phenylalanine the said peptide being conjugated with thioctic acid, dihydrolioic
acid, or N-lipoyl-lysine, in the form of the corresponding salts, esters or amides. In
particular, compounds with anti-allergic and anti-inflammatory activities on the one had, and
melanogenesis-activating activities on the other, are described. 5,830,742 Nov. 3, TNF- alpha
converting A metalloprotease that converts TNF- alpha from the 26 kD cell

form to the 17 kD form
1998 enzyme has been isolated and purified and the cDNA sequence known. In particular, the
protease has a molecular weight of approximately 80 kD. The isolated and purified protease is
useful for designing an inhibitor thereof, and may find use as a therapeutic agent. Assays for
detecting the protease-inhibiting activity of a molecule are also an aspect of the invention.
5,830,436 Nov. 3, Method of mucociliary A method and medicament for the inhibition of oxidants
comprising administering a 1998 clearance in cystic fibrosis treatment effective amount of
alkylaryl polyether alcohol polymers to a chemical or biologic patients using alkylaryl system in
need thereof. Also, a method and medicament for mucociliary clearance, polyether alcohol polymers
inhibition of cytokine production, and inhibition of interleukin-8 production in cystic fibrosis
patients. The method involves administering a treatment effective amount of alkylaryl polyether
alcohol polymers to a chemical or biologic system in need thereof. The medicament is preferably
administered by aerosolization into the mammalian respiratory system. The medicament may also be
applied to the mammalian skin. Preferably, the medicament includes a physiologically acceptable
carrier which may be selected from the group consisting of physiologically buffered saline,
isotonic saline, normal saline, petrolatum based ointments and U.S.P. cold cream. 5,824,551 Oct.
20, Method for modulating cell The invention is based upon the newly recognized ability of beta
chemokines to inhibit cell 1998 apoptosis apoptosis. In particular, apoptosis of T cells is
described. The known beta chemokines 309 and TCA-3 are examples of the beta chemokines which
inhibit apoptosis. One aspect of the invention is the use of these molecules to inhibit
apoptosis. A second aspect of the invention is the use of beta chemokine inhibitors or
antagonists to provoke apoptosis. 5,821,366 Oct. 13, Xanthines and their
1,3-Disubstituted-zanthines have therapeutic utility via TNF or phosphodiesterase 1998
therapeutic use inhibition. 5,821,262 Oct. 13, Hydroxamic acid A compound of formula (I): [See
Original Patent for Chemical Structure Diagram] (I) 1998 derivatives as inhibitors of wherein:
R<1> represents a (C1-C6) alkyl, phenyl, substituted phenyl, or heterocyclyl cytokine production
group; R<2> represents a (C1-C6) alkyl group; R3<3> represents: (i) the side chain of arginine,
lysine, tryptophan, histidine, serine, threonine, or cysteine, in which any polar amino, hydroxy,
mercapto, guanidyl, imidazolyl or indolyl group is rendered substantially non-polar by
substitution at the polar N-, O- or S-atom; or (ii) the side chain of aspartic or glutamic acid,
in which side chain the carboxylic acid group is amidated; R<4> represents hydrogen or a (C1-C6)
alkyl or phenyl (C1-C6) alkyl group; R<5> represents hydrogen or and n is 0, 1 or 2; or
substituted phenyl groups; or a salt solvate or hydrate thereof. Compositions containing compound
(I) and methods for treatment of diseases or conditions mediated by TNF or MMPs in mammals.
5,820,858 Oct. 13, Methods and compositions This invention provides monoclonal antibodies that
bind to the cell surface CD14 receptor 1998 for inhibiting CD14 and soluble CD14 receptor. The
antibodies are useful for the detection of the presence of mediated cell activation cell surface
and soluble CD14 in a sample. Chimeric and CDR grafted antibodies generated from the above
monoclonal antibodies are further provided. Pharmaceutical compositions containing the above
biological compositions are provided. These are useful to treat and prevent LPS-associated
disorders, such as sepsis. 5,814,661 Sep. 29, Use of Phthalidyliden esters A therapeutical method
for treating endotoxic shock which comprises administering to a 1998 of carnitine and alkanoyl
patient in need thereof a (3-phthalidyliden) alkyl ester of carnitine or alkanoyl carnitine, is
carnitines for the treatment disclosed. of endotoxic shock 5,811,549 Sep. 22, Process of
preparing Novel 1,4,5-substituted imidazole compounds and compositions for use in therapy as 1998
imidazole compounds cytokine inhibitors. 5,811,455 Sep. 22, Compounds useful for [See Original
Patent for Chemical Strucutre Diagram] (I) [See Original Patent for Chemical 1998 treating
allergic or Structure Diagram] (II) Novel cyclohexanes of formulas (I) and (II) are described
herein. inflammatory diseases They inhibit the production of Tumor Necrosis Factor and are useful
in the treatment of disease states mediated or exacerbated by TNF production; these compounds are
also useful in the mediation or inhibition of enzymatic or catalytic activity of
phosphodiesterase IV. 5,811,300 Sep. 22, TNF- alpha ribozymes Enzymatic RNA molecules which
cleave TNF- alpha mRNA. 1998 5,811,118 Sep. 22, Methods of treatment using This invention
provides a method of adminstering an arachidonic acid metabolite, such 1998 unilamellar liposomal
as prostaglandin E1, to an animal. The metabolite is given to the animal, typically a human,
arachidonic acid metabolite in asspcoatopm with a unilamellar liposome comprising a lipid and a
release-inhibiting formulations aqueous buffer. This method can be used to treat animals
afflicted with disorders characterized by cell activation and adhesion, inflammation or toxemia.
5,808,029 Sep 15, DNA encoding a human The present invention is concerned with non-soluble
proteins and soluble or insoluble 1998 TNF binding protein fragments thereof, which bind TNF, in
homogeneous form, as well as their physiologically compatible salts, especially those proteins
having a molecular weight of about 55 or 75 kD (non-reducing SDS-PAGE conditions), a process for
the isolation of such proteins, antibodies against such proteins, DNA sequences which code for
non-soluble proteins and soluble or non-soluble fragments thereof, which bind TNF, as well as
those which code for proteins comprising partly of a soluble fragment, which binds TNF, and
partly of all domains except the first of the constant region of the heavy chain of human
immunoglobulins and the recombinant proteins coded thereby as well as a process for their
manufacture using transformed pro- and eukaryotic host cells. 5,807,884 Sep. 15, Treatment for A
method for the treatment of cardiovascular diseases and noncardiovascular 1998 atherosclerosis
and other inflammatory diseases that are mediated by VCAM-1isprovided that includes the removal,
cardiovascular and decrease in the concentration of, or prevention of the formation of oxidized
polyunsaturated inflammatory diseases fatty acids, or interferes with a complex formed between a
polyunsaturated fatty acid or an oxidized polyunsaturated fatty acid and a protein or peptide
that mediates the expression of VCAM-1. A method is also provided for suppressing the expression
of a redox-sensitive gene or activating a gene that is suppressed through a redox-sensitive
pathway, that includes administering an effective amount of a substance that prevents the
oxidation of the oxidized signal, and typically, the oxidation of a polyunsaturated fatty acid,
or interferes with a complex formed between the oxidized signal and a protein or peptide that
mediates

16. Document ID: US 6172216 B1

L8: Entry 16 of 75

File: USPT

Jan 9, 2001

US-PAT-NO: 6172216
DOCUMENT-IDENTIFIER: US 6172216 B1
TITLE: Antisense modulation of BCL-X expression
DATE-ISSUED: January 9, 2001

US-CL-CURRENT: 536/24.5; 435/325, 435/375, 435/6, 435/91.1, 536/23.1, 536/23.2, 536/24.3, 536/24.33

APPL-NO: 9/ 167921
DATE FILED: October 7, 1998

IN: Bennett; C. Frank, Dean; Nicholas M., Monia; Brett P., Nickoloff; Brian J., Zhang; QingQing

AB: Compositions and methods are provided for modulating the expression of bcl-x. Antisense compounds, particularly antisense oligonucleotides, targeted to nucleic acids encoding bcl-x are preferred. Methods of using these compounds for modulation of bcl-x expression and for treatment of diseases associated with expression of bcl-x are also provided.

L8: Entry 16 of 75

File: USPT

Jan 9, 2001

DOCUMENT-IDENTIFIER: US 6172216 B1
TITLE: Antisense modulation of BCL-X expression

BSPR:
Pharmaceutical compositions and/or formulations comprising the oligonucleotides of the present invention may also include penetration enhancers in order to enhance the alimentary delivery of the oligonucleotides. Penetration enhancers may be classified as belonging to one of five broad categories, i.e., fatty acids, bile salts, chelating agents, surfactants and non-surfactants (Lee et al., Critical Reviews in Therapeutic Drug Carrier Systems, 1991, 8, 91-192; Muranishi, Critical Reviews in Therapeutic Drug Carrier Systems, 1990, 7, 1-33). One or more penetration enhancers from one or more of these broad categories may be included.

17. Document ID: US 6165788 A

L8: Entry 17 of 75

File: USPT

Dec 26, 2000

US-PAT-NO: 6165788
DOCUMENT-IDENTIFIER: US 6165788 A
TITLE: Antisense modulation of Survivin expression
DATE-ISSUED: December 26, 2000

US-CL-CURRENT: 435/375; 435/377, 435/455, 435/6, 536/23.1, 536/24.1, 536/24.5

APPL-NO: 9/ 286407
DATE FILED: April 5, 1999

PARENT-CASE:
FIELD OF THE INVENTION This application is a continuation-in-part of U.S. Ser. No. 09/163,162 filed Sep. 29, 1998. The present invention provides compositions and methods for modulating the expression of Survivin. In particular, this invention relates to antisense compounds, particularly oligonucleotides, specifically hybridizable with nucleic acids encoding human Survivin. Such oligonucleotides have been shown to modulate the expression of Survivin.

IN: Bennett; C. Frank, Ackermann; Elizabeth J., Swayze; Eric E., Cowsert; Lex M.

AB: Antisense compounds, compositions and methods are provided for modulating the expression of Survivin. The compositions comprise antisense compounds, particularly antisense oligonucleotides, targeted to nucleic acids encoding Survivin. Methods of using these compounds for modulation of Survivin expression and for treatment of diseases associated with expression of Survivin are provided.

L8: Entry 17 of 75

File: USPT

Dec 26, 2000

DOCUMENT-IDENTIFIER: US 6165788 A
TITLE: Antisense modulation of Survivin expression

BSPR:
Pharmaceutical compositions and/or formulations comprising the oligonucleotides of the present invention may also include penetration enhancers in order to enhance the alimentary delivery of the oligonucleotides. Penetration enhancers may be classified as belonging to one of five broad categories, i.e., fatty acids, bile salts, chelating agents, surfactants and non-surfactants (Lee et al., Critical Reviews in Therapeutic Drug Carrier Systems, 1991, 8, 91-192; Muranishi, Critical Reviews in Therapeutic Drug Carrier Systems, 1990, 7:1, 1-33). One or more penetration enhancers from one or more of these broad categories may be included.

18. Document ID: US 6159694 A

L8: Entry 18 of 75

File: USPT

Dec 12, 2000

US-PAT-NO: 6159694
DOCUMENT-IDENTIFIER: US 6159694 A
TITLE: Antisense modulation of stat3 expression
DATE-ISSUED: December 12, 2000

US-CL-CURRENT: 435/6; 435/325, 435/91.1, 536/23.1, 536/24.3, 536/24.5

APPL-NO: 9/ 288461
DATE FILED: April 8, 1999

IN: Karras; James G.

AB: Compounds, compositions and methods are provided for inhibiting the expression of human STAT3. The compositions comprise antisense oligonucleotides targeted to nucleic acids encoding STAT3. Methods of using these oligonucleotides for inhibition of STAT3 expression and for treatment of diseases, particularly inflammatory diseases and cancers, associated with overexpression or constitutive activation of STAT3 are provided.

L8: Entry 18 of 75

File: USPT

Dec 12, 2000

DOCUMENT-IDENTIFIER: US 6159694 A
TITLE: Antisense modulation of stat3 expression

BSPR:
Pharmaceutical compositions comprising the oligonucleotides of the present invention may include penetration enhancers in order to enhance the alimentary delivery of the oligonucleotides.
Penetration enhancers may be classified as belonging to one of five broad categories, i.e., fatty acids, bile salts, chelating agents, surfactants and non-surfactants (Lee et al., Critical Reviews in Therapeutic Drug Carrier Systems, 1991, 8, 91-192; Muranishi, Critical Reviews in Therapeutic Drug Carrier Systems, 1990, 7, 1-33). One or more penetration enhancers from one or more of these broad categories may be included. Various fatty acids and their derivatives which act as penetration enhancers include, for example, oleic acid, lauric acid, capric acid, myristic acid, palmitic acid, stearic acid, linoleic acid, linolenic acid, dicaprate, tricaprate, recinleate, monoolein (a.k.a. 1-monooleoyl-rac-glycerol), dilaurin, caprylic acid, arachidonic acid, glyceryl 1-monocaprate, 1-dodecylazacycloheptan-2-one, acylcarnitines, acylcholines, mono- and di-glycerides and physiologically acceptable salts thereof (i.e., oleate, laurate, caprate, myristate, palmitate, stearate, linoleate, etc.) (Lee et al., Critical Reviews in Therapeutic Drug Carrier Systems, 1991, page 92; Muranishi, Critical Reviews in Therapeutic Drug Carrier Systems, 1990, 7, 1; El-Hariri et al., J. Pharm. Pharmacol., 1992 44, 651-654).

19. Document ID: US 6156355 A

L8: Entry 19 of 75

File: USPT

Dec 5, 2000

US-PAT-NO: 6156355
DOCUMENT-IDENTIFIER: US 6156355 A
TITLE: Breed-specific canine food formulations
DATE-ISSUED: December 5, 2000

US-CL-CURRENT: 426/74; 426/61, 426/650, 426/805

APPL-NO: 9/ 245067
DATE FILED: February 5, 1999

PARENT-CASE:
RELATED APPLICATIONS This application claims benefit of priority to provisional application Serial No. 60/107,033, filed Nov. 2, 1998, the contents of which are incorporated by reference in their entirety herein.

IN: Shields, Jr.; Richard G., Bennett; Jeffrey P.

AB: Breed-specific dog food formulations that comprise chicken meat as the major ingredient, rice as the predominant (or sole) grain source, fruit and/or vegetable fiber as the primary or sole fiber source, unique fat and antioxidant blend, vitamins, herbs and spices, carotenoids, and no corn or artificial colors, preservatives, flavors or sugars are provided.

L8: Entry 19 of 75

File: USPT

Dec 5, 2000

DOCUMENT-IDENTIFIER: US 6156355 A
TITLE: Breed-specific canine food formulations

BSPR:
As with intestinal disorders, all diets contain some dietary components to promote strong bones and joint function including the fatty acids listed above as well as potentially the yucca extract to control joint inflammation, manganese supplementation (cofactor in enzymes in chondroitin synthesis), zinc supplementation (protein and DNA synthesis), iron and vitamin C (for the hydroxylation of proline during collagen formation) and copper (for cross-linking of collagen molecules to provide cartilage strength) as well as biotin and choline (for proteoglycan formation and aggregation). The ingredients listed above are added in the diets specifically designed for breed groups with a high propensity of bone and joint problems, including Herding dogs.

20. Document ID: US 6140124 A

L8: Entry 20 of 75

File: USPT

Oct 31, 2000

US-PAT-NO: 6140124
DOCUMENT-IDENTIFIER: US 6140124 A
TITLE: Antisense modulation of P38 mitogen activated protein kinase expression
DATE-ISSUED: October 31, 2000

US-CL-CURRENT: 435/375; 435/325, 435/6, 435/91.1, 536/23.1, 536/24.3, 536/24.31, 536/24.33, 536/24.5

APPL-NO: 9/ 286904

DATE FILED: April 6, 1999

IN: Monia; Brett P., Gaarde; William A., Nero; Pamela S., McKay; Robert

AB: Compositions and methods for the treatment and diagnosis of diseases or conditions amenable to treatment through modulation of expression of a gene encoding a p38 mitogen-activated protein kinase (p38 MAPK) are provided. Methods for the treatment and diagnosis of diseases or conditions associated with aberrant expression of one or more p38 MAPKs are also provided.

L8: Entry 20 of 75

File: USPT

Oct 31, 2000

DOCUMENT-IDENTIFIER: US 6140124 A
TITLE: Antisense modulation of P38 mitogen activated protein kinase expression

BSPR:
Pharmaceutical compositions comprising the oligonucleotides of the present invention may include penetration enhancers in order to enhance the alimentary delivery of the oligonucleotides. Penetration enhancers may be classified as belonging to one of five broad categories, i.e., fatty acids, bile salts, chelating agents, surfactants and non-surfactants (Lee et al., Critical Reviews in Therapeutic Drug Carrier Systems, 1991, 8:91-192; Muranishi, Critical Reviews in Therapeutic Drug Carrier Systems, 1990, 7:1). One or more penetration enhancers from one or more of these broad categories may be included.

21. Document ID: US 6136603 A

L8: Entry 21 of 75

File: USPT

Oct 24, 2000

US-PAT-NO: 6136603
DOCUMENT-IDENTIFIER: US 6136603 A
TITLE: Antisense modulation of interleukin-5 signal transduction
DATE-ISSUED: October 24, 2000

US-CL-CURRENT: 435/375; 435/366, 435/6, 435/91.1, 536/23.1, 536/24.31, 536/24.33, 536/24.5

APPL-NO: 9/ 280799
DATE FILED: March 26, 1999

IN: Dean; Nicholas M., Karras; James G., McKay; Robert

AB: Compositions and methods are provided for antisense modulation of interleukin-5 signal transduction. Antisense compounds, particularly antisense oligonucleotides, targeted to nucleic acids encoding interleukin-5 and interleukin-5 receptor.alpha. are preferred. Methods of using these compounds for modulation of interleukin-5 signal transduction and for treatment of diseases associated with interleukin-5 signal transduction are also provided.

L8: Entry 21 of 75

File: USPT

Oct 24, 2000

DOCUMENT-IDENTIFIER: US 6136603 A
TITLE: Antisense modulation of interleukin-5 signal transduction

BSPR:
Pharmaceutical compositions and/or formulations comprising the oligonucleotides of the present invention may also include penetration enhancers in order to enhance the alimentary delivery of the oligonucleotides. Penetration enhancers may be classified as belonging to one of five broad categories, i.e., fatty acids, bile salts, chelating agents, surfactants and non-surfactants (Lee et al., Critical Reviews in Therapeutic Drug Carrier Systems, 1991, 8, 91-192; Muranishi, Critical Reviews in Therapeutic Drug Carrier Systems, 1990, 7, 1-33). One or more penetration enhancers from one or more of these broad categories may be included.

22. Document ID: US 6133246 A

L8: Entry 22 of 75

File: USPT

Oct 17, 2000

US-PAT-NO: 6133246
DOCUMENT-IDENTIFIER: US 6133246 A
TITLE: Antisense oligonucleotide compositions and methods for the modulation of JNK proteins
DATE-ISSUED: October 17, 2000

US-CL-CURRENT: 514/44; 435/183, 435/194, 435/325, 435/366, 435/375, 435/6, 536/23.1, 536/24.31, 536/24.5

APPL-NO: 9/ 287796
DATE FILED: April 7, 1999

PARENT-CASE:
This application is a continuation-in-part of U.S. application Ser. No. 09/130,616 filed Aug. 7, 1998 which is a continuation-in-part of U.S. application Ser. No. 08/910,629 filed Aug. 13, 1997, now U.S. Pat. No. 5,877,309.

IN: McKay; Robert, Dean; Nicholas, Monia; Brett P., Nero; Pamela S., Gaarde; William A.

AB: Compositions and methods for the treatment and diagnosis of diseases or disorders amenable to treatment through modulation of expression of a gene encoding a Jun N-terminal kinase (JNK protein) are provided. Oligonucleotide are herein provided which are specifically hybridizable with nucleic acids encoding JNK1, JNK2 and JNK3, as well as other JNK proteins and specific isoforms thereof. Methods of treating animals suffering from diseases or disorders amenable to therapeutic intervention by modulating the expression of one or more JNK proteins with such oligonucleotide are also provided.

Methods for the
treatment and diagnosis of diseases or disorders associated with aberrant expression of one
or more JNK proteins are also provided. Methods for inducing apoptosis and for treating
diseases or conditions associated with a reduction in apoptosis are also provided.

L8: Entry 22 of 75
File: USPT
Oct 17, 2000

DOCUMENT-IDENTIFIER: US 6133246 A
TITLE: Antisense oligonucleotide compositions and methods for the modulation of JNK proteins

BSPR:
C. Penetration Enhancers: Pharmaceutical compositions comprising the oligonucleotides of the
present invention may also include penetration enhancers in order to enhance the alimentary
delivery of the oligonucleotides. Penetration enhancers may be classified as belonging to one of
five broad categories, i.e., fatty acids, bile salts, chelating agents, surfactants and
non-surfactants (Lee et al., Critical Reviews in Therapeutic Drug Carrier Systems, 1991, 8,
91-192; Muranishi, Critical Reviews in Therapeutic Drug Carrier Systems, 1990, 7:1).

23. Document ID: US 6133031 A

L8: Entry 23 of 75
File: USPT
Oct 17, 2000

US-PAT-NO: 6133031
DOCUMENT-IDENTIFIER: US 6133031 A
TITLE: Antisense inhibition of focal adhesion kinase expression
DATE-ISSUED: October 17, 2000

US-CL-CURRENT: 435/375; 435/6, 435/91.1, 514/44, 536/23.1, 536/24.5

APPL-NO: 9/ 377310
DATE FILED: August 19, 1999

IN: Monia; Brett P., Gaarde; William A.

AB: Compounds, compositions and methods are provided for inhibiting FAK mediated
signaling. The compositions comprise antisense compounds targeted to nucleic acids encoding
FAK. Methods of using these antisense compounds for inhibition of FAK expression and for
treatment of diseases, particularly cancers, associated with overexpression or constitutive
activation of FAK are provided.

L8: Entry 23 of 75
File: USPT
Oct 17, 2000

DOCUMENT-IDENTIFIER: US 6133031 A
TITLE: Antisense inhibition of focal adhesion kinase expression

BSPR:
Pharmaceutical compositions comprising the oligonucleotides of the present invention may include
penetration enhancers in order to enhance the alimentary delivery of the oligonucleotides.
Penetration enhancers may be classified as belonging to one of five broad categories, i.e., fatty
acids, bile salts, chelating agents, surfactants and non-surfactants (Lee et al., Critical
Reviews in Therapeutic Drug Carrier Systems 1991, 8, 91-192; Muranishi, Critical Reviews in
Therapeutic Drug Carrier Systems 1990, 7, 1-33). One or more penetration enhancers from one or
more of these broad categories may be included.

24. Document ID: US 6121005 A

L8: Entry 24 of 75
File: USPT
Sep 19, 2000

US-PAT-NO: 6121005
DOCUMENT-IDENTIFIER: US 6121005 A
TITLE: Polypeptides comprising domains of the GAX protein implicated in the repression of
transcription and/or interaction with other proteins, corresponding nucleic acids, and their use
DATE-ISSUED: September 19, 2000

US-CL-CURRENT: 435/7.1; 530/324, 530/350

APPL-NO: 8/ 950860
DATE FILED: October 15, 1997

FOREIGN-APPL-PRIORITY-DATA:
COUNTRY APPL-NO APPL-DATE
FR 96 12730 October 18, 1996

IN: Fournier; Alain, Mahfoudi; Abderrahim, Marcireau; Christophe, Branellec; Didier

AB: This invention pertains to polynucleotides comprising GAX domains involved in GAX
biological activity. It may pertain, notably, to domains involved in the interaction of GAX
with other molecules or domains that are responsible for biological activity. The invention
also pertains to chimeric molecules comprising a GAX functional domain. It also pertains to
the use of GAX to repress gene expression, as well as the use of compounds that inhibit GAX
interaction with certain cellular partners to modulate GAX activity. It also pertains to a
method for screening and/or identifying GAX cellular partners.

L8: Entry 24 of 75
File: USPT
Sep 19, 2000

DOCUMENT-IDENTIFIER: US 6121005 A
TITLE: Polypeptides comprising domains of the GAX protein implicated in the repression of
transcription and/or interaction with other proteins, corresponding nucleic

acids, and their use

BSPR:
The promoter is advantageously selected from among the functional promoters in human cells. More
preferably, it is a promoter that permits the expression of a nucleic acid sequence in a
hyperproliferative cell (cancer cells, restenosis, etc.). In this regard, different promoters may
be used. Thus, it can be any promoter or derived sequence that stimulates or represses the
transcription of a gene in a specific or non-specific, inducible or non-inducible, strong or weak
manner. Notably, we can cite promoter sequences of eukaryotic or viral genes. For example, they
may be promoter sequences from the genome of the target cell. Among the eukaryotic promoters,
ubiquitous promoters, in particular, can be used (HPRT [hypoxanthine-guanine-phosphoribosyl
transferase], PGK [phosphoglycerate kinase], alpha-actin, tubulin, DHFR [dihydrofolate
reductase], etc. gene promoters), intermediary filaments promoters (promoter of GFAP [glial
fibrillary acidic protein], desmin, vimentin, neurofilaments, keratin, etc. genes), promoters of
therapeutic genes (for example, the promoter of MDR and CFTR [cystic fibrosis transmembrane
regulator] genes, Factor VIII, ApoAI, etc.), specific tissue promoters (the promoter of the
pyruvate kinase gene, villin, intestinal fatty acids binding protein, smooth muscle alpha-actin,
etc.), specific cell promoters of types of dividing cells, such as cancer cells or even promoters
that respond to a stimulus (steroid hormones receptor, retinoic acid receptor, glucocorticoid
receptor, etc.) or so-called inducible [promoters]. In like manner, they may be promoter
sequences from a virus genome, such as for example, promoters of adenovirus E1A and MLP genes,
the early CMV [cytomegalovirus] promoter, or even the LTR [long terminal repeat] promoter of the
RSV [respiratory synctial virus], etc. Moreover, these promoter regions may be modified by the
addition of activating or

25. Document ID: US 6117847 A

L8: Entry 25 of 75

File: USPT

Sep 12, 2000

US-PAT-NO: 6117847
DOCUMENT-IDENTIFIER: US 6117847 A
TITLE: Oligonucleotides for enhanced modulation of protein kinase C expression
DATE-ISSUED: September 12, 2000

US-CL-CURRENT: 514/44; 435/375, 536/24.5

APPL-NO: 9/ 094714
DATE FILED: June 15, 1998

PARENT-CASE:
CROSS REFERENCE TO RELATED APPLICATIONS This application is a continuation-in-part of U.S. patent
application Ser. No. 08/664,336 filed Jun. 14, 1996, now U.S. Pat. No. 5,922,686, which is a
continuation-in-part of U.S. patent application Ser. No. 08/089,996, filed Jul. 9, 1993, which
issued on Dec. 30, 1997 as U.S. Pat. No. 5,703,054, which in turn is a
continuation-in-part of
U.S. patent application Ser. No. 07/852,852 filed Mar. 16, 1992, now abandoned.

IN: Bennett; C. Frank, Dean; Nicholas M.

AB: Compositions and methods are provided for modulating the expression of protein
kinase C. Oligonucleotides are provided which are targeted to nucleic acids encoding PKC.
The oligonucleotides are from 5 to 50 nucleotides in length and in one referred embodiment
are from 12 to 18 nucleotides in length. The oligonucleotides may be chimeric
oligonucleotides and in a preferred embodiment comprise at least one 2'-O-methoxyethyl
modification. Pharmaceutical compositions comprising the oligonucleotides of the invention
are also provided. Methods of inhibiting protein kinase C expression and methods of treating
conditions associated with expression of protein kinase C using oligonucleotides of the
invention are disclosed.

L8: Entry 25 of 75

File: USPT

Sep 12, 2000

DOCUMENT-IDENTIFIER: US 6117847 A
TITLE: Oligonucleotides for enhanced modulation of protein kinase C expression

BSPR:
Pharmaceutical compositions comprising the oligonucleotides of the present invention may include
penetration enhancers in order to enhance the alimentary delivery of the oligonucleotides.
Penetration enhancers may be classified as belonging to one of five broad categories, ie., fatty
acids, bile salts, chelating agents, surfactants and non-surfactants (Lee et al., Critical
Reviews in Therapeutic Drug Carrier Systems, 1991, 8:91-192; Muranishi, Critical Reviews in
Therapeutic Drug Carrier Systems, 1990, 7:1). One or more penetration enhancers from one or more
of these broad categories may be included. Compositions comprising oligonucleotides and
penetration enhancers are disclosed in co-pending U.S. patent application Ser. No. 08/886,829 to
Teng et al., filed Jul. 1, 1997, which is herein incorporated by reference in its entirety.

26. Document ID: US 6114167 A

L8: Entry 26 of 75

File: USPT

Sep 5, 2000

US-PAT-NO: 6114167
DOCUMENT-IDENTIFIER: US 6114167 A
TITLE: Ribozymes targeting the MoMLV PSI packaging sequence and the HIV tat sequence
DATE-ISSUED: September 5, 2000

US-CL-CURRENT: 435/372.3; 435/325, 435/366

APPL-NO: 8/ 310259

DATE FILED: September 21, 1994

PARENT-CASE:
This application is a continuation-in-part of U.S. Ser. No. 08/178,082, filed Jan. 5, 1994, U.S. Pat. No. 5,712,384. Throughout this application various publications are referred to by author and year within brackets. The full references are listed alphabetically after the Experimental Section. The disclosures for these publications in their entireties are hereby incorporated by reference into this application to more fully describe the state of the art to which this invention pertains.

IN: Symonds; Geoffrey P., Sun; Lun-Quan

AB: A cell comprising a synthetic non-naturally occurring oligonucleotide compound comprises nucleotides whose sequence defines a conserved catalytic region and nucleotides whose sequence hybridizes with a predetermined target sequence within a MoMLV Psi packaging sequence on the HIV tat sequence. The catalytic region may be derived from a hammerhead ribozyme, a hairpin ribozyme a hepatitis delta ribozyme, an PNAase P ribozyme, a group I intron or a group II intron.

L8: Entry 26 of 75
File: USPT
Sep 5, 2000

DOCUMENT-IDENTIFIER: US 6114167 A
TITLE: Ribozymes targeting the MoMLV PSI packaging sequence and the HIV tat sequence

DEPR:
An "effective amount" as used herein refers to that amount which provides a desired effect in a mammal having a given condition and administration regimen. Compositions comprising effective amounts together with suitable diluents, preservatives, solubilizers, emulsifiers, adjuvants and/or carriers useful for therapy. Such compositions are liquids or lyophilized or otherwise dried formulations and include diluents of various buffer content (e.g., Tris-HCL, acetate phosphate), pH and ionic strength, additives such as albumin or gelatin to prevent absorption to surfaces, detergents (e.g., Tween 20, Tween 80, Pluronic F68, bile acid salts), solubilizing agents (e.g., Thimerosal, benzyl alcohol), bulking substances or tonicity modifiers (e.g., lactose, mannitol), covalent attachment of polymers such as polyethylene glycol to the non-naturally occuring oligonucleotide compound, complexation with metal ions, or incorporation of the material into or onto particulate preparations of polymeric compounds such as polylactic acid, polyglycolic acid, polyvinyl pyrrolidone, etc. or into liposomes, microemulsions, micelles, unilamellar or multilamellar vesicles, erythrocyte ghosts, or spheroplasts. Such compositions will influence the physical state, solubility, stability, rate of in vivo release, and rate of in vivo clearance of the oligonucleotide. Other ingredients optionally may be added such as antioxidants, e.g., ascorbic acid; low molecular weight (less than about ten residues) polypeptides, i.e., polyarginine or tripeptides; proteins, such as serum albumin, gelatin, or immunoglobulins; amino acids; such as glycine, glutamine acid, aspartic acid, or arginine; chelating agents such as EDTA; and sugar alcohols such as mannitol or sorbitol. Possible sustained release compositions include formulation of lipophilic depots (e.g., fatty acids, waxes, oils). Also comprehended by the invention are particulate compositions coated with polymers (e.g., polyoxamers or polyoxamines) and non-naturally occuring oligonucleotide compound coupled to antibodies directed against tissue-specific receptors, ligands or antigens or coupled to ligands of tissue-specific receptors. Further, specific nucleotide sequences may be added to target the non-naturally occuring oligonucleotide compound of this invention to the nucleus, plastid, cytoplasm or to specific types of cells. Other embodiments of the compositions of the invention incorporate particulate forms protective coatings, protease inhibitors or permeation enhancers for various routes of administration, including parenteral, pulmonary, nasal and oral.

27. Document ID: US 6114517 A

L8: Entry 27 of 75
File: USPT
Sep 5, 2000

US-PAT-NO: 6114517
DOCUMENT-IDENTIFIER: US 6114517 A
TITLE: Methods of modulating tumor necrosis factor .alpha.-induced expression of cell adhesion molecules
DATE-ISSUED: September 5, 2000

US-CL-CURRENT: 536/24.5; 435/375, 435/6, 435/91.1, 435/91.31, 536/23.1, 536/24.3

APPL-NO: 9/ 209668
DATE FILED: December 10, 1998

IN: Monia; Brett P., Xu; Xiaoxing S.

AB: Methods are provided for inhibiting the expression of cell adhesion molecules using inhibitors of signaling molecules involved in human TNF-.alpha. signaling. These inhibitors include monoclonal antibodies, peptide fragments, small molecule inhibitors, and, preferably, antisense oligonucleotides. Methods for treatment of diseases, particularly inflammatory and immune diseases, associated with overexpression of cell adhesion molecules are provided.

L8: Entry 27 of 75
File: USPT
Sep 5, 2000

DOCUMENT-IDENTIFIER: US 6114517 A
TITLE: Methods of modulating tumor necrosis factor .alpha.-induced expression of cell adhesion molecules

DEPR:
Pharmaceutical compositions comprising the oligonucleotides of the present invention may include penetration enhancers in order to enhance the alimentary delivery of the

oligonucleotides.
Penetration enhancers may be classified as belonging to one of five broad categories, i.e., fatty
acids, bile salts, chelating agents, surfactants and non-surfactants (Lee et al., Critical
Reviews in Therapeutic Drug Carrier Systems, 1991, 8, 91-192; Muranishi, Critical Reviews in
Therapeutic Drug Carrier Systems, 1990, 7, 1-33). One or more penetration enhancers from one or
more of these broad categories may be included.

28. Document ID: US 6111094 A

L8: Entry 28 of 75

File: USPT

Aug 29, 2000

US-PAT-NO: 6111094
DOCUMENT-IDENTIFIER: US 6111094 A
TITLE: Enhanced antisense modulation of ICAM-1
DATE-ISSUED: August 29, 2000

US-CL-CURRENT: 536/24.5; 435/375, 435/6, 536/24.31

APPL-NO: 9/062416
DATE FILED: April 17, 1998

PARENT-CASE:
CROSS-REFERENCES TO RELATED APPLICATIONS This application is a continuation-in-part of
application Ser. No. 08/440,740 (filed May 12, 1995, now U.S. Pat. No. 5,843,738), which is a
continuation-in-part of application Ser. No. 08/063,167 (filed May 17, 1993, now U.S. Pat. No.
5,514,788) which is a continuation of application Ser. No. 07/969,151 (filed Feb. 10, 1993, now
abandoned), which is a continuation-in-part of application Ser. No. 08/007,997 (filed Jan. 21,
1993, now U.S. Pat. No. 5,591,623), which is a continuation-in-part of application Ser. No.
07/939,855 (filed Sep. 2, 1992, now abandoned), which is a continuation-in-part of application
Ser. No. 07/567,286 (filed Aug. 14, 1990, now abandoned).

IN: Bennett; C. Frank, Condon; Thomas P., Flournoy; Shin Cheng

AB: The present invention provides compositions and methods for detecting and
modulating levels of intercellular adhesion molecule-1 (ICAM-1) proteins, including human
ICAM-1.

L8: Entry 28 of 75

File: USPT

Aug 29, 2000

DOCUMENT-IDENTIFIER: US 6111094 A
TITLE: Enhanced antisense modulation of ICAM-1

DEPR:
(1) Penetration Enhancers: Pharmaceutical compositions comprising the oligonucleotides of the
present invention may also include penetration enhancers in order to enhance the alimentary
delivery of the oligonucleotides. Penetration enhancers may be classified as belonging to one of
five broad categories, i.e., fatty acids, bile salts, chelating agents, surfactants and
non-surfactants (Lee et al., Critical Reviews in Therapeutic Drug Carrier Systems, 1991,
8:91-192; Muranishi, Critical Reviews in Therapeutic Drug Carrier Systems, 1990, 7:1).

29. Document ID: US 6096722 A

L8: Entry 29 of 75

File: USPT

Aug 1, 2000

US-PAT-NO: 6096722
DOCUMENT-IDENTIFIER: US 6096722 A
TITLE: Antisense modulation of cell adhesion molecule expression and treatment of cell adhesion
molecule-associated diseases
DATE-ISSUED: August 1, 2000

US-CL-CURRENT: 514/44; 435/325, 435/375, 435/6, 435/91.1, 536/23.1, 536/24.5

APPL-NO: 9/085759
DATE FILED: May 27, 1998

PARENT-CASE:
CROSS-REFERENCES TO RELATED APPLICATIONS This application is a continuation-in-part of
application Ser. No. 08/440,740 (filed May 12, 1995, now U.S. Pat. No. 5,843,738), which is a
continuation-in-part of application Ser. No. 08/063,167 (filed May 17, 1993, now U.S. Pat. No.
5,514,788) which is a continuation of application Ser. No. 07/969,151 (filed Feb. 10, 1993), now
abandoned, which is a continuation-in-part of application Ser. No. 08/007,997 (filed Jan. 21,
1993, now U.S. Pat. No. 5,591,623), which is a continuation-in-part of application Ser. No.
07/939,855 (filed Sep. 2, 1992), now abandoned, which is a continuation-in-part of application
Ser. No. 07/567,286 (filed Aug. 14, 1990), now abandoned. The contents of all of the
aforementioned are herein incorporated by reference in their entirety.

IN: Bennett; C. Frank, Mirabelli; Christopher K., Baker; Brenda

AB: Compositions and methods are provided for the modulation of expression of
cellular adhesion molecules. In accordance with preferred embodiments, oligonucleotides are
provided which are specifically hybridizable with nucleic acids encoding intercellular
adhesion molecule-1, vascular cell adhesion molecule-1, and endothelial leukocyte adhesion
molecule-1. Methods of modulating expression of cellular adhesion molecules are provided, as
are methods of treating conditions associated with cellular adhesion molecules. In a
preferred embodiment, the cellular adhesion molecule is ICAM-1, and a preferred antisense
sequence targeted to human ICAM-1 is demonstrated to have clinical utility in several
disease indications.

L8: Entry 29 of 75

File: USPT

Aug 1, 2000

DOCUMENT-IDENTIFIER: US 6096722 A
TITLE: Antisense modulation of cell adhesion molecule expression and treatment of cell adhesion
molecule-associated diseases

DRPR:
Pharmaceutical compositions comprising the oligonucleotides of the present invention may include
penetration enhancers in order to enhance the alimentary delivery of the oligonucleotides.
Penetration enhancers may be classified as belonging to one of five broad categories, i.e., fatty
acids, bile salts, chelating agents, surfactants and non-surfactants (Lee et al., Critical
Reviews in Therapeutic Drug Carrier Systems 1991, 8, 91-192; Muranishi, Critical Reviews in
Therapeutic Drug Carrier Systems 1990, 7, 1-33). One or more penetration enhancers from one or
more of these broad categories may be included. Various fatty acids and their derivatives which
act as penetration enhancers include, for example, oleic acid, lauric acid, capric acid, myristic
acid, palmitic acid, stearic acid, linoleic acid, linolenic acid, dicaprate, tricaprate,
recinleate, monoolein (a.k.a. 1-monooleoyl-rac-glycerol), dilaurin, caprylic acid, arachidonic
acid, glyceryl 1-monocaprate, 1-dodecylazacycloheptan-2-one, acylcarnitines, acylcholines, mono-
and di-glycerides and physiologically acceptable salts thereof (i.e., oleate, laurate, caprate,
myristate, palmitate, stearate, linoleate, etc.) (Lee et al., Critical Reviews in Therapeutic
Drug Carrier Systems 1991, page 92; Muranishi, Critical Reviews in Therapeutic Drug Carrier
Systems 1990, 7, 1; El-Hariri et al., J. Pharm. Pharmacol. 1992 44, 651-654). Sodium caprate and
sodium laurate are presently preferred, particularly in combination with one or more bile salts.

30. Document ID: US 6087489 A

L8: Entry 30 of 75
File: USPT
Jul 11, 2000

US-PAT-NO: 6087489
DOCUMENT-IDENTIFIER: US 6087489 A
TITLE: Antisense oligonucleotide modulation of human thymidylate synthase expression
DATE-ISSUED: July 11, 2000

US-CL-CURRENT: 536/24.5; 435/325, 435/366, 435/6, 536/23.1

APPL-NO: 9/089195
DATE FILED: June 2, 1998

IN: Dean; Nicholas M.

AB: Compounds, compositions and methods are provided for modulating the expression of
human thymidylate synthase. The compositions comprise antisense oligonucleotides targeted to
nucleic acids encoding thymidylate synthase. Methods of using these oligonucleotides for
modulation of thymidylate synthase expression and for treatment of diseases such as cancers
believed to be responsive to modulation of thymidylate synthase expression are provided.

L8: Entry 30 of 75
File: USPT
Jul 11, 2000

DOCUMENT-IDENTIFIER: US 6087489 A
TITLE: Antisense oligonucleotide modulation of human thymidylate synthase expression

DEPR:
Pharmaceutical compositions comprising the oligonucleotides of the present invention may include
penetration enhancers in order to enhance the alimentary delivery of the oligonucleotides.
Penetration enhancers may be classified as belonging to one of five broad categories, i.e., fatty
acids, bile salts, chelating agents, surfactants and non-surfactants (Lee et al., Critical
Reviews in Therapeutic Drug Carrier Systems 1991, 8, 91-192; Muranishi, Critical Reviews in
Therapeutic Drug Carrier Systems 1990, 7, 1-33). One or more penetration enhancers from one or
more of these broad categories may be included. Various fatty acids and their

31. Document ID: US 6083744 A

L8: Entry 31 of 75
File: USPT
Jul 4, 2000

US-PAT-NO: 6083744
DOCUMENT-IDENTIFIER: US 6083744 A
TITLE: DNA-armed ribozymes and minizymes
DATE-ISSUED: July 4, 2000

US-CL-CURRENT: 435/325; 435/320.1, 435/366, 435/6, 435/91.1, 536/23.1, 536/23.2, 536/24.5

APPL-NO: 8/477934
DATE FILED: June 7, 1995

PARENT-CASE:
This application is a divisional of U.S. Ser. No. 07/986,776, filed Dec. 8, 1992, which is a
continuation-in-part of U.S. Ser. No. 07/717,602, filed Jun. 19, 1991, now U.S. Pat. No.
5,298,612, the contents of which are incorporated by reference into the present application.

FOREIGN-APPL-PRIORITY-DATA:

COUNTRY	APPL-NO	APPL-DATE
AU	PK0679/90	June 19, 1990
AU	PK4002/90	December 21, 1990

IN: Jennings; Philip Anthony, McCall; Maxine June, Hendry; Philip

AB: The invention describes catalytic nucleic acid based compounds capable of
cleaving nucleic acid polymers both in vivo and in vitro. Two embodiments of this invention
are compounds with a short stem that does not base pair, a minizyme, and

compounds with DNA
hybridizing arms and RNA catalytic domain and stem, DNA-armed ribozymes. The compounds of
this invention, while nucleotide based may be substituted or modified in the sugar,
phosphate, or base. Methods of use and methods of treatment are also described.

L8: Entry 31 of 75
File: USPT
Jul 4, 2000

DOCUMENT-IDENTIFIER: US 6083744 A
TITLE: DNA-armed ribozymes and minizymes

DEPR:
An "effective amount" as used herein refers to that amount which provides a desired effect in a
mammal having a given condition and administration regimen. Compositions comprising effective
amounts together with suitable diluents, preservatives, solubilizers, emulsifiers, adjuvants
and/or carriers useful for therapy. Such compositions are liquids or lyophilized or otherwise
dried formulations and include diluents of various buffer content (e.g., Tris-HCL, acetate
phosphate), pH and ionic strength, additives such as albumin or gelatin to prevent absorption to
surfaces, detergents (e.g., Tween 20, Tween 80, Pluronic F68, bile acid salts), solubilizing
agents (e.g., Thimerosal, benzyl alcohol), bulking substances or tonicity modifiers (e.g.,
lactose, mannitol), covalent attachment of polymers such as polyethylene glycol to the
oligonucleotide, complexation with metal ions, or incorporation of the material into or onto
particulate preparations of polymeric compounds such as polylactic acid, polyglycolic acid,
polyvinyl pyrrolidone, etc. or into liposomes, microemulsions, micelles, unilamellar or
multilamellar vesicles, erythrocyte ghosts, or spheroplasts. Such compositions will influence the
physical state, solubility, stability, rate of in vivo release, and rate of in vivo clearance of
the oligonucleotide. Other ingredients optionally may be added such as antioxidants, e.g.,
ascorbic acid; low molecular weight (less than about ten residues) polypeptides, i.e.,
polyarginine or tripeptides; proteins, such as serum albumin, gelatin, or immunoglobulins; amino
acids; such as glycine, glutamine acid, aspartic acid, or arginine; chelating agents such as
EDTA; and sugar alcohols such as mannitol or sorbitol. Possible sustained release compositions
include formulation of lipophilic depots (e.g., fatty acids, waxes, oils). Also comprehended by
the invention are particulate compositions coated with polymers (e.g., polyoxamers or
polyoxamines) and oligonucleotides coupled to antibodies directed against tissue-specific
receptors, ligands or antigens or coupled to ligands of tissue-specific receptors. Further,
specific nucleotide sequences may be added to target the oligonucleotides of this invention to
the nucleus, cytoplasm or to specific types of cells. Other embodiments of the compositions of
the invention incorporate particulate forms protective coatings, protease inhibitors or
permeation enhancers for various routes of administration, including parenteral, pulmonary, nasal
and oral.

32. Document ID: US 6080580 A

L8: Entry 32 of 75
File: USPT
Jun 27, 2000

US-PAT-NO: 6080580
DOCUMENT-IDENTIFIER: US 6080580 A
TITLE: Antisense oligonucleotide modulation of tumor necrosis factor-.alpha. (TNF-.alpha.)
expression
DATE-ISSUED: June 27, 2000

US-CL-CURRENT: 435/375; 435/366, 435/6, 435/91.1, 536/23.1, 536/24.31, 536/24.33, 536/24.5

APPL-NO: 9/ 166186
DATE FILED: October 5, 1998

IN: Baker; Brenda F., Bennett; C. Frank, Butler; Madeline M., Shanahan, Jr.; William
R.

AB: Compositions and methods are provided for inhibiting the expression of human
tumor necrosis factor-.alpha. (TNF-.alpha.). Antisense oligonucleotides targeted to nucleic
acids encoding TNF-.alpha. are preferred. Methods of using these oligonucleotides for
inhibition of TNF-.alpha. expression and for treatment of diseases, particularly
inflammatory and autoimmune diseases, associated with overexpression of TNF-.alpha. are
provided.

L8: Entry 32 of 75
File: USPT
Jun 27, 2000

DOCUMENT-IDENTIFIER: US 6080580 A
TITLE: Antisense oligonucleotide modulation of tumor necrosis factor-.alpha. (TNF-.alpha.)
expression

BSPR:
Pharmaceutical compositions comprising the oligonucleotides of the present invention may include
penetration enhancers in order to enhance the alimentary delivery of the oligonucleotides.
Penetration enhancers may be classified as belonging to one of five broad categories, i.e., fatty
acids, bile salts, chelating agents, surfactants and non-surfactants (Lee et al., Critical
Reviews in Therapeutic Drug Carrier Systems 1991, 8, 91-192; Muranishi, Critical Reviews in
Therapeutic Drug Carrier Systems 1990, 7, 1-33). One or more penetration enhancers from one or
more of these broad categories may be included.

33. Document ID: US 6077672 A

L8: Entry 33 of 75
File: USPT
Jun 20, 2000

US-PAT-NO: 6077672
DOCUMENT-IDENTIFIER: US 6077672 A
TITLE: Antisense modulation of TRADD expression
DATE-ISSUED: June 20, 2000

US-CL-CURRENT: 435/6; 536/24.1, 536/24.5

APPL-NO: 9/ 143212
DATE FILED: August 28, 1998

IN: Monia; Brett P., Cowsert; Lex M.

AB: Antisense compounds, compositions and methods are provided for modulating the expression of TRADD. The compositions comprise antisense compounds, particularly antisense oligonucleotides, targeted to nucleic acids encoding TRADD. Methods of using these compounds for modulation of TRADD expression and for treatment of diseases associated with expression of TRADD are provided.

L8: Entry 33 of 75

File: USPT

Jun 20, 2000

DOCUMENT-IDENTIFIER: US 6077672 A
TITLE: Antisense modulation of TRADD expression

BSPR:
Pharmaceutical compositions and/or formulations comprising the oligonucleotides of the present invention may also include penetration enhancers in order to enhance the alimentary delivery of the oligonucleotides. Penetration enhancers may be classified as belonging to one of five broad categories, i.e., fatty acids, bile salts, chelating agents, surfactants and non-surfactants (Lee et al., Critical Reviews in Therapeutic Drug Carrier Systems, 1991, 8, 91-192; Muranishi, Critical Reviews in Therapeutic Drug Carrier Systems, 1990, 7, 1-33). One or more penetration enhancers from one or more of these broad categories may be included. Penetration enhancers are described in pending U.S. patent application Ser. No. 08/886,829, filed on Jul. 1, 1997, and pending U.S. patent application Ser. No. 08/961,469, filed on Oct. 31, 1997, both of which are commonly owned with the instant application and both of which are herein incorporated by reference.

34. Document ID: US 6077709 A

L8: Entry 34 of 75

File: USPT

Jun 20, 2000

US-PAT-NO: 6077709
DOCUMENT-IDENTIFIER: US 6077709 A
TITLE: Antisense modulation of Survivin expression
DATE-ISSUED: June 20, 2000

US-CL-CURRENT: 435/375; 435/377, 435/455, 435/6, 536/23.1, 536/24.1, 536/24.5

APPL-NO: 9/ 163162

DATE FILED: September 29, 1998

IN: Bennett; C. Frank, Ackermann; Elizabeth J., Swayze; Eric E., Cowsert; Lex M.

AB: Antisense compounds, compositions and methods are provided for modulating the expression of Survivin. The compositions comprise antisense compounds, particularly antisense oligonucleotides, targeted to nucleic acids encoding Survivin. Methods of using these compounds for modulation of Survivin expression and for treatment of diseases associated with expression of Survivin are provided.

L8: Entry 34 of 75

File: USPT

Jun 20, 2000

DOCUMENT-IDENTIFIER: US 6077709 A
TITLE: Antisense modulation of Survivin expression

BSPR:
Pharmaceutical compositions and/or formulations comprising the oligonucleotides of the present invention may also include penetration enhancers in order to enhance the alimentary delivery of the oligonucleotides. Penetration enhancers may be classified as belonging to one of five broad categories, i.e., fatty acids, bile salts, chelating agents, surfactants and non-surfactants (Lee et al., Critical Reviews in Therapeutic Drug Carrier Systems, 1991, 8, 91-192; Muranishi, Critical Reviews in Therapeutic Drug Carrier Systems, 1990, 7, 1-33). One or more penetration enhancers from one or more of these broad categories may be included. Penetration enhancers are described in pending U.S. patent application Ser. No. 08/886,829, filed on Jul. 1, 1997, and pending U.S. patent application Ser. No. 08/961,469, filed on Oct. 31, 1997, both of which are commonly owned with the instant application and both of which are herein incorporated by reference.

35. Document ID: US 6040159 A

L8: Entry 35 of 75

File: USPT

Mar 21, 2000

US-PAT-NO: 6040159
DOCUMENT-IDENTIFIER: US 6040159 A
TITLE: TNF-.alpha. ribozymes and derivatives capable of decreasing degradation of MRNA in vivo
DATE-ISSUED: March 21, 2000

US-CL-CURRENT: 435/91.31; 435/320.1, 435/325, 435/91.1, 536/23.1, 536/23.2, 536/24.1, 536/24.5

APPL-NO: 8/ 416516
DATE FILED: April 4, 1995

PARENT-CASE:
This is a continuation of application Ser. No 07/971,058, filed Nov. 3, 1992 and now abandoned.

IN: Sioud; Mouldy

AB: This invention describes compounds active against TNF-.alpha. mRNA. It further describes mRNA molecules capable of conferring stability to RNA in vivo. Possible mRNA molecules to be stabilized include ribozymes, antisense molecules and mRNA encoding polypeptides useful for protein production. The ribozymes and antisense molecules described herein are useful in mammals and plants, particularly suited for viral diseases. Methods of production and methods of use are also described.

L8: Entry 35 of 75

File: USPT

Mar 21, 2000

DOCUMENT-IDENTIFIER: US 6040159 A
TITLE: TNF-.alpha. ribozymes and derivatives capable of decreasing degradation of MRNA in vivo

DEPR:
An "effective amount" as used herein refers to that amount which provides a desired effect in a mammal having given condition and administration regimen. Compositions comprising effective amounts together with suitable diluents, preservatives, solubilizers, emulsifiers, adjuvants and/or carriers useful for therapy. Such compositions are liquids or lyophilized or otherwise dried formulations and include diluents of various buffer content (e.g., Tris-HCL, acetate phosphate), pH and ionic strength, additives such as albumin or gelatin to prevent absorption to surfaces, detergents (e.g., Tween 20, Tween 80, Pluronic F68, bile acid salts), solubilizing agents (e.g., Thimerosal, benzyl alcohol), bulking substances or tonicity modifiers (e.g., lactose, mannitol), covalent attachment of polymers such as polyethylene glycol to the oligonucleotide, complexation with metal ions, or incorporation of the material into or onto particulate preparations of polymeric compounds such as polylactic acid, polyglycolic acid, polyvinyl pyrrolidone, etc. or into liposomes, microemulsions, micelles, unilamellar or multimellar vesicles, erythrocyte ghosts, or spheroplasts. Such compositions will influence the physical state, solubility, stability, rate of in vivo release, and rate of in vivo clearance of the oligonucleotide. Other ingredients optionally may be added such as antioxidants, e.g., ascorbic acid; low molecular weight (less than about ten residues) polypeptides, i.e., polyarginine or tripeptides; proteins, such as serum albumin, gelatin, or immunoglobulins; amino acids; such as glycine, glutamine acid, aspartic acid, or arginine; chelating agents such as EDTA; and sugar alcohols such as mannitol or sorbitol. Possible sustained release compositions include formulation of lipophilic depots (e.g., fatty acids, waxes, oils). Also comprehended by the invention are particulate compositions coated with polymers (e.g., polyoxamers or polyoxamines) and oligonucleotides coupled to antibodies directed against tissue-specific receptors, ligands or antigens or coupled to ligands of tissue-specific receptors. Further, specific nucleotide sequences may be added to target the oligonucleotides of this invention to the nucleus, cytoplasm or to specific types of cells. Other embodiments of the compositions of the invention incorporate particulate forms protective coatings, protease inhibitors or permeation enhancers for various routes of administration, including parenteral, pulmonary, nasal and oral.

36. Document ID: US 6030786 A

L8: Entry 36 of 75

File: USPT

Feb 29, 2000

US-PAT-NO: 6030786
DOCUMENT-IDENTIFIER: US 6030786 A
TITLE: Antisense modulation of RhoC expression
DATE-ISSUED: February 29, 2000

US-CL-CURRENT: 435/6; 435/325, 435/366, 435/91.1, 536/23.1, 536/24.31, 536/24.5

APPL-NO: 9/ 156807
DATE FILED: September 18, 1998

IN: Cowsert; Lex M.

AB: Antisense compounds, compositions and methods are provided for modulating the expression of RhoC. The compositions comprise antisense compounds, particularly antisense oligonucleotides, targeted to nucleic acids encoding RhoC. Methods of using these compounds for modulation of RhoC expression and for treatment of diseases associated with expression of RhoC are provided.

L8: Entry 36 of 75

File: USPT

Feb 29, 2000

DOCUMENT-IDENTIFIER: US 6030786 A
TITLE: Antisense modulation of RhoC expression

BSPR:
Pharmaceutical compositions and/or formulations comprising the oligonucleotides of the present invention may also include penetration enhancers in order to enhance the alimentary delivery of the oligonucleotides. Penetration enhancers may be classified as belonging to one of five broad categories, i.e., fatty acids, bile salts, chelating agents, surfactants and non-surfactants (Lee et al., Critical Reviews in Therapeutic Drug Carrier Systems, 1991, 8, 91-192; Muranishi, Critical Reviews in Therapeutic Drug Carrier Systems, 1990, 7, 1-33). One or more penetration enhancers from one or more of these broad categories may be included. Penetration enhancers are described in pending U.S. patent application Ser. No. 08/886,829, filed on Jul. 1, 1997, and pending U.S. patent application Ser. No. 08/961,469, filed on Oct. 31, 1997, United States patent X,XXX,XXX, both of which are commonly owned with the instant application and both of which are herein incorporated by reference.

37. Document ID: US 6020198 A

L8: Entry 37 of 75

File: USPT

Feb 1, 2000

US-PAT-NO: 6020198
DOCUMENT-IDENTIFIER: US 6020198 A
TITLE: Antisense modulation of RIP-1 expression
DATE-ISSUED: February 1, 2000

US-CL-CURRENT: 435/375; 435/6, 536/23.1, 536/24.1, 536/24.5

APPL-NO: 9/ 161443
DATE FILED: September 25, 1998

IN: Bennett; C. Frank, Cowsert; Lex M.

AB: Antisense compounds, compositions and methods are provided for modulating the expression of RIP-1. The compositions comprise antisense compounds, particularly antisense oligonucleotides, targeted to nucleic acids encoding RIP-1. Methods of using these compounds for modulation of RIP-1 expression and for treatment of diseases associated with expression of RIP-1 are provided.

L8: Entry 37 of 75

File: USPT

Feb 1, 2000

DOCUMENT-IDENTIFIER: US 6020198 A
TITLE: Antisense modulation of RIP-1 expression

BSPR:
Pharmaceutical compositions and/or formulations comprising the oligonucleotides of the present invention may also include penetration enhancers in order to enhance the alimentary delivery of the oligonucleotides. Penetration enhancers may be classified as belonging to one of five broad categories, i.e., fatty acids, bile salts, chelating agents, surfactants and non-surfactants (Lee et al., Critical Reviews in Therapeutic Drug Carrier Systems, 1991, 8, 91-192; Muranishi, Critical Reviews in Therapeutic Drug Carrier Systems, 1990, 7, 1-33). One or more penetration enhancers from one or more of these broad categories may be included. Penetration enhancers are described in pending U.S. patent application Ser. No. 08/886,829, filed on Jul. 1, 1997, and pending U.S. patent application Ser. No. 08/961,469, filed on Oct. 31, 1997, both of which are commonly owned with the instant application and both of which are herein incorporated by reference.

38. Document ID: US 6007995 A

L8: Entry 38 of 75

File: USPT

Dec 28, 1999

US-PAT-NO: 6007995
DOCUMENT-IDENTIFIER: US 6007995 A
TITLE: Antisense inhibition of TNFR1 expression
DATE-ISSUED: December 28, 1999

US-CL-CURRENT: 435/6; 435/325, 435/366, 435/377, 435/91.1, 536/23.1, 536/24.31, 536/24.5

APPL-NO: 9/ 106038
DATE FILED: June 26, 1998

IN: Baker; Brenda F., Cowsert; Lex M.

AB: Antisense compounds, compositions and methods are provided for modulating the expression of TNFR1. The compositions comprise antisense compounds, particularly antisense oligonucleotides, targeted to nucleic acids encoding TNFR1. Methods of using these compounds for modulation of TNFR1 expression and for treatment of diseases associated with expression of TNFR1 are provided.

L8: Entry 38 of 75

File: USPT

Dec 28, 1999

DOCUMENT-IDENTIFIER: US 6007995 A
TITLE: Antisense inhibition of TNFR1 expression

BSPR:
Pharmaceutical compositions and/or formulations comprising the oligonucleotides of the present invention may also include penetration enhancers in order to enhance the alimentary delivery of the oligonucleotides. Penetration enhancers may be classified as belonging to one of five broad categories, i.e., fatty acids, bile salts, chelating agents, surfactants and non-surfactants (Lee et al., Critical Reviews in Therapeutic Drug Carrier Systems, 1991, 8, 91-192; Muranishi, Critical Reviews in Therapeutic Drug Carrier Systems, 1990, 7, 1-33). One or more penetration enhancers from one or more of these broad categories may be included. Penetration enhancers are described in pending U.S. patent application Ser. No. 08/886,829, filed on Jul. 1, 1997, U.S. Pat. No. X,XXX,XXX, and pending U.S. patent application Ser. No. 08/961,469, filed on Oct. 31, 1997, U.S. Pat. No. X,XXX,XXX, both of which are commonly owned with the instant application and both of which are herein incorporated by reference.

39. Document ID: US 6004814 A

L8: Entry 39 of 75

File: USPT

Dec 21, 1999

US-PAT-NO: 6004814
DOCUMENT-IDENTIFIER: US 6004814 A
TITLE: Antisense modulation of CD71 expression
DATE-ISSUED: December 21, 1999

US-CL-CURRENT: 435/375; 435/6, 536/23.1, 536/24.1, 536/24.5

APPL-NO: 9/ 161244

DATE FILED: September 25, 1998

IN: Bennett; C. Frank, Cowsert; Lex M.

AB: Antisense compounds, compositions and methods are provided for modulating the expression of CD71. The compositions comprise antisense compounds, particularly antisense oligonucleotides, targeted to nucleic acids encoding CD71. Methods of using these compounds for modulation of CD71 expression and for treatment of diseases associated with expression of CD71 are provided.

L8: Entry 39 of 75

File: USPT

Dec 21, 1999

DOCUMENT-IDENTIFIER: US 6004814 A
TITLE: Antisense modulation of CD71 expression

BSPR:
Pharmaceutical compositions and/or formulations comprising the oligonucleotides of the present invention may also include penetration enhancers in order to enhance the alimentary delivery of the oligonucleotides. Penetration enhancers may be classified as belonging to one of five broad categories, i.e., fatty acids, bile salts, chelating agents, surfactants and non-surfactants (Lee et al., Critical Reviews in Therapeutic Drug Carrier Systems, 1991, 8, 91-192; Muranishi, Critical Reviews in Therapeutic Drug Carrier Systems, 1990, 7, 1-33). One or more penetration enhancers from one or more of these broad categories may be included. Penetration enhancers are described in pending U.S. patent application Ser. No. 08/886,829, filed on Jul. 1, 1997, and pending U.S. patent application Ser. No. 08/961,469, filed on Oct. 31, 1997, both of which are commonly owned with the instant application and both of which are herein incorporated by reference.

40. Document ID: US 6001652 A

L8: Entry 40 of 75

File: USPT

Dec 14, 1999

US-PAT-NO: 6001652
DOCUMENT-IDENTIFIER: US 6001652 A
TITLE: Antisense modulation of cREL expression
DATE-ISSUED: December 14, 1999

US-CL-CURRENT: 435/375; 435/369, 435/371, 435/6, 435/91.1, 536/23.1, 536/24.31, 536/24.33, 536/24.5

APPL-NO: 9/ 156253
DATE FILED: September 18, 1998

IN: Monia; Brett P., Baker; Brenda F., Cowsert; Lex M.

AB: Antisense compounds, compositions and methods are provided for modulating the expression of cREL. The compositions comprise antisense compounds, particularly antisense oligonucleotides, targeted to nucleic acids encoding cREL. Methods of using these compounds for modulation of cREL expression and for treatment of diseases associated with expression of cREL are provide

L8: Entry 40 of 75

File: USPT

Dec 14, 1999

DOCUMENT-IDENTIFIER: US 6001652 A
TITLE: Antisense modulation of cREL expression

BSPR:
Pharmaceutical compositions and/or formulations comprising the oligonucleotides of the present invention may also include penetration enhancers in order to enhance the alimentary delivery of the oligonucleotides. Penetration enhancers may be classified as belonging to one of five broad categories, i.e., fatty acids, bile salts, chelating agents, surfactants and non-surfactants (Lee et al., Critical Reviews in Therapeutic Drug Carrier Systems, 1991, 8, 91-192; Muranishi, Critical Reviews in Therapeutic Drug Carrier Systems, 1990, 7, 1-33). One or more penetration enhancers from one or more of these broad categories may be included. Penetration enhancers are described in pending U.S. patent application Ser. No. 08/886,829, filed on Jul. 1, 1997, and pending U.S. patent application Ser. No. 08/961,469, filed on Oct. 31, 1997, both of which are commonly owned with the instant application and both of which are herein incorporated by reference.

41. Document ID: US 6001651 A

L8: Entry 41 of 75

File: USPT

Dec 14, 1999

US-PAT-NO: 6001651
DOCUMENT-IDENTIFIER: US 6001651 A
TITLE: Antisense modulation of LFA-3
DATE-ISSUED: December 14, 1999

US-CL-CURRENT: 435/375; 435/371, 435/6, 435/91.1, 536/23.1, 536/24.31, 536/24.33, 536/24.5

APPL-NO: 9/ 045106
DATE FILED: March 20, 1998

IN: Bennett; C. Frank, Condon; Thomas P., Flournoy; Shin Cheng, Pober; Jordan S., Ma; Weillie

AB: Compositions and methods for the treatment and diagnosis of diseases or disorders amenable to treatment through modulation of expression of a nucleic acid encoding a lymphocyte function associated antigen 3 (LFA-3; also known as CD58) protein are provided.

L8: Entry 41 of 75

File: USPT

Dec 14, 1999

DOCUMENT-IDENTIFIER: US 6001651 A
TITLE: Antisense modulation of LFA-3

DEPR:
Pharmaceutical compositions comprising the oligonucleotides of the present invention may also include penetration enhancers in order to enhance the alimentary delivery of the oligonucleotides. Penetration enhancers may be classified as belonging to one of five broad categories, i.e., fatty acids, bile salts, chelating agents, surfactants and non-surfactants (Lee et al., Critical Reviews in Therapeutic Drug Carrier Systems, 1991, 8:91-192; Muranishi, Critical Reviews in Therapeutic Drug Carrier Systems, 1990, 7:1).

42. Document ID: US 6001992 A

L8: Entry 42 of 75

File: USPT

Dec 14, 1999

US-PAT-NO: 6001992
DOCUMENT-IDENTIFIER: US 6001992 A
TITLE: Antisense modulation of novel anti-apoptotic bcl-2-related proteins
DATE-ISSUED: December 14, 1999

US-CL-CURRENT: 536/24.5; 435/375, 435/440, 435/6, 435/91.1, 536/23.1, 536/24.3

APPL-NO: 9/ 226568
DATE FILED: January 7, 1999

IN: Ackermann; Elizabeth J., Bennett; C. Frank, Dean; Nicholas M., Marcusson; Eric G.

AB: Compositions and methods are provided for modulating the expression of novel anti-apoptotic bcl-2-related proteins. Antisense oligonucleotides targeted to nucleic acids encoding the human novel anti-apoptotic bcl-2-related proteins A1 and mcl-1 are preferred. Methods of using these compounds for modulation of novel anti-apoptotic bcl-2-related protein expression and for treatment of diseases associated with expression of novel anti-apoptotic bcl-2-related proteins are also provided. Also provided are methods of using these compounds for promoting apoptosis and for treatment of diseases for which promotion of apoptosis is desired.

L8: Entry 42 of 75

File: USPT

Dec 14, 1999

DOCUMENT-IDENTIFIER: US 6001992 A
TITLE: Antisense modulation of novel anti-apoptotic bcl-2-related proteins

BSPR:
Pharmaceutical compositions and/or formulations comprising the oligonucleotides of the present invention may also include penetration enhancers in order to enhance the alimentary delivery of the oligonucleotides. Penetration enhancers may be classified as belonging to one of five broad categories, i.e., fatty acids, bile salts, chelating agents, surfactants and non-surfactants (Lee et al., Critical Reviews in Therapeutic Drug Carrier Systems, 1991, 8, 91-192; Muranishi, Critical Reviews in Therapeutic Drug Carrier Systems, 1990, 7, 1-33). One or more penetration enhancers from one or more of these broad categories may be included.

43. Document ID: US 5985620 A

L8: Entry 43 of 75

File: USPT

Nov 16, 1999

US-PAT-NO: 5985620
DOCUMENT-IDENTIFIER: US 5985620 A
TITLE: TNF-.alpha. Ribozymes
DATE-ISSUED: November 16, 1999

US-CL-CURRENT: 435/91.31; 435/243, 435/320.1, 435/325, 435/440, 435/455, 435/471, 435/6, 435/91.1, 435/91.3, 435/91.33, 514/44, 536/23.1, 536/23.2, 536/24.5

APPL-NO: 8/ 428252
DATE FILED: June 22, 1995

PARENT-CASE:
This application is a continuation-in-part of U.S. Ser. No. 07/971,058, filed Nov. 3, 1992, and now abandoned, and a 371 of PCT/AU93/00567, filed Nov. 3, 1993.

PCT-DATA:

APPL-NO	DATE-FILED	PUB-NO	PUB-DATE	371-DATE	102(E)-DATE
PCT/AU93/00567	November 3, 1993	WO94/10301	May 11, 1994	Jun 22, 1995	Jun 22, 1995

IN: Sioud; Mouldy

AB: This invention describes compounds active against TNF-.alpha. mRNA. It further describes RNA molecules capable of conferring stability to RNA in vivo through an endogenous ribozyme binding protein(s). Possible mRNA molecules to be stabilized include ribozymes, antisense molecules and mRNA encoding polypeptides useful for protein production. The ribozymes and antisense molecules described herein are useful in mammals and plants, particularly suited for viral diseases. Methods of production and methods of use are also described.

L8: Entry 43 of 75

File: USPT

Nov 16, 1999

DOCUMENT-IDENTIFIER: US 5985620 A
TITLE: TNF-.alpha. Ribozymes

DEPR:
An "effective amount" as used herein refers to that amount which provides a desired effect in a mammal having a given condition and administration regimen. Compositions comprising effective amounts together with suitable diluents, preservatives, solubilizers, emulsifiers, adjuvants and/or carriers useful for therapy. Such compositions are liquids or lyophilized or otherwise dried formulations and include diluents of various buffer content (e.g., Tris-HCL, acetate phosphate), pH and ionic strength, additives such as albumin or gelatin to prevent absorption to surfaces, detergents (e.g., Tween 20, Tween 80, Pluronic F68, bile acid salts), solubilizing agents (e.g., Thimerosal, benzyl alcohol), bulking substances or tonicity modifiers (e.g., lactose, mannitol), covalent attachment of polymers such as polyethylene glycol to the oligonucleotide, complexation with metal ions, or incorporation of the material into or onto particulate preparations of polymeric compounds such as polylactic acid, polyglycolic acid, polyvinyl pyrrolidone, etc. or into liposomes, microemulsions, micelles, unilamellar or multimellar vesicles, erythrocyte ghosts, or spheroplasts. Such compositions will influence the physical state, solubility, stability, rate of in vivo release, and rate of in vivo clearance of the oligonucleotide. Other ingredients optionally may be added such as antioxidants, e.g., ascorbic acid; low molecular weight (less than about ten residues) polypeptides, i.e., polyarginine or tripeptides; proteins, such as serum albumin, gelatin, or immunoglobulins; amino acids; such as glycine, glutamic acid, aspartic acid, or arginine; chelating agents such as EDTA; and sugar alcohols such as mannitol or sorbitol. Possible sustained release compositions include formulation of lipophilic depots (e.g., fatty acids, waxes, oils). Also comprehended by the invention are particulate compositions coated with polymers (e.g., polyoxamers or polyoxamines) and oligonucleotides coupled to antibodies directed against tissue-specific receptors, ligands or antigens or coupled to ligands of tissue-specific receptors. Further, specific nucleotide sequences may be added to target the oligonucleotides of this invention to the nucleus, cytoplasm or to specific types of cells. Other embodiments of the compositions of the invention incorporate particulate forms protective coatings, protease inhibitors or permeation enhancers for various routes of administration, including parenteral, pulmonary, nasal and oral.

44. Document ID: US 5968826 A

L8: Entry 44 of 75

File: USPT

Oct 19, 1999

US-PAT-NO: 5968826
DOCUMENT-IDENTIFIER: US 5968826 A
TITLE: Antisense inhibition of integrin .alpha.4 expression
DATE-ISSUED: October 19, 1999

US-CL-CURRENT: 435/375; 435/325, 435/366, 435/6, 435/91.1, 536/23.1, 536/24.31, 536/24.33, 536/24.5

APPL-NO: 9/ 166203
DATE FILED: October 5, 1998

IN: Bennett; C. Frank, Condon; Thomas P., Cowsert; Lex M.

AB: Compositions and methods are provided for modulating the expression of integrin .alpha.4. Antisense compounds, particularly antisense oligonucleotides, targeted to nucleic acids encoding integrin .alpha.4 are preferred. Methods of using these compounds for modulating integrin .alpha.4 expression and for treatment of diseases associated with expression of integrin .alpha.4 are also provided.

L8: Entry 44 of 75

File: USPT

Oct 19, 1999

DOCUMENT-IDENTIFIER: US 5968826 A
TITLE: Antisense inhibition of integrin .alpha.4 expression

BSPR:
Pharmaceutical compositions and/or formulations comprising the oligonucleotides of the present invention may also include penetration enhancers in order to enhance the alimentary delivery of the oligonucleotides. Penetration enhancers may be classified as belonging to one of five broad categories, i.e., fatty acids, bile salts, chelating agents, surfactants and non-surfactants (Lee et al., Critical Reviews in Therapeutic Drug Carrier Systems, 1991, 8, 91-192; Muranishi, Critical Reviews in Therapeutic Drug Carrier Systems, 1990, 7, 1-33). One or more penetration enhancers from one or more of these broad categories may be included. Penetration enhancers are described in pending U.S. patent application Ser. No. 08/886,829, filed on Jul. 1, 1997, and pending U.S. patent application Ser. No. 08/961,469, filed on Oct. 31, 1997, both of which are commonly owned with the instant application and both of which are herein incorporated by reference.

45. Document ID: US 5968748 A

L8: Entry 45 of 75

File: USPT

Oct 19, 1999

US-PAT-NO: 5968748
DOCUMENT-IDENTIFIER: US 5968748 A
TITLE: Antisense oligonucleotide modulation of human HER-2 expression
DATE-ISSUED: October 19, 1999

US-CL-CURRENT: 435/6; 435/325, 435/366, 435/375, 435/91.1, 536/23.1, 536/24.31, 536/24.5

APPL-NO: 9/ 048804
DATE FILED: March 26, 1998

IN: Bennett; C. Frank, Lipton; Allan, Witters; Lois M.

AB: Compounds, compositions and methods are provided for inhibiting the expression of human HER-2 (also known as c-neu, ErbB-2 and HER-2/neu). The compositions comprise antisense oligonucleoptides targeted to nucleic acids encoding HER-2. Methods of using these oligonucleotides for inhibition of HER-2 expression and for treatment of diseases such as cancers associated with overexpression of HER-2 are provided. Methods of inhibiting other growth factor receptors using antisense oligonucleotides targeted to nucleic acids encoding HER-2 are also provided.

L8: Entry 45 of 75

File: USPT

Oct 19, 1999

DOCUMENT-IDENTIFIER: US 5968748 A
TITLE: Antisense oligonucleotide modulation of human HER-2 expression

BSPR:
Pharmaceutical compositions comprising the oligonucleotides of the present invention may include penetration enhancers in order to enhance the alimentary delivery of the oligonucleotides. Penetration enhancers may be classified as belonging to one of five broad categories, i.e., fatty acids, bile salts, chelating agents, surfactants and non-surfactants. Lee, et al., Critical Reviews in Therapeutic Drug Carrier Systems, 1991, 8:91-192 and Muranishi, Critical Reviews in Therapeutic Drug Carrier Systems, 1990, 7, 1. One or more penetration enhancers from one or more of these broad categories may be included. Compositions comprising oligonucleotides and penetration enhancers are disclosed in co-pending U.S. patent application Ser. No. 08/886,829 to Teng, et al., filed Jul. 1, 1997, which is incorporated herein by reference in its entirety.

46. Document ID: US 5965370 A

L8: Entry 46 of 75

File: USPT

Oct 12, 1999

US-PAT-NO: 5965370
DOCUMENT-IDENTIFIER: US 5965370 A
TITLE: Antisense modulation of RhoG expression
DATE-ISSUED: October 12, 1999

US-CL-CURRENT: 435/6; 435/325, 435/366, 435/375, 435/91.1, 536/23.1, 536/24.31, 536/24.5

APPL-NO: 9/ 161015
DATE FILED: September 25, 1998

IN: Cowsert; Lex M.

AB: Antisense compounds, compositions and methods are provided for modulating the expression of RhoG. The compositions comprise antisense compounds, particularly antisense oligonucleotides, targeted to nucleic acids encoding RhoG. Methods of using these compounds for modulation of RhoG expression and for treatment of diseases associated with expression of RhoG are provided.

L8: Entry 46 of 75

File: USPT

Oct 12, 1999

DOCUMENT-IDENTIFIER: US 5965370 A
TITLE: Antisense modulation of RhoG expression

BSPR:
Pharmaceutical compositions and/or formulations comprising the oligonucleotides of the present invention may also include penetration enhancers in order to enhance the alimentary delivery of the oligonucleotides. Penetration enhancers may be classified as belonging to one of five broad categories, i.e., fatty acids, bile salts, chelating agents, surfactants and non-surfactants (Lee et al., Critical Reviews in Therapeutic Drug Carrier Systems, 1991, 8, 91-192; Muranishi, Critical Reviews in Therapeutic Drug Carrier Systems, 1990, 7, 1-33). One or more penetration enhancers from one or more of these broad categories may be included. Penetration enhancers are described in pending U.S. patent application 08/886,829, filed on Jul. 1, 1997, and pending U.S. patent application 08/961,469, filed on Oct. 31, 1997, both of which are commonly owned with the instant application and both of which are herein incorporated by reference.

47. Document ID: US 5962671 A

L8: Entry 47 of 75

File: USPT

Oct 5, 1999

US-PAT-NO: 5962671
DOCUMENT-IDENTIFIER: US 5962671 A
TITLE: Antisense modulation of fan expression
DATE-ISSUED: October 5, 1999

US-CL-CURRENT: 536/24.5; 435/375, 536/23.1, 536/24.1, 536/24.3

APPL-NO: 9/ 156425
DATE FILED: September 18, 1998

IN: Baker; Brenda F., Cowsert; Lex M.

AB: Antisense compounds, compositions and methods are provided for modulating the expression of FAN. The compositions comprise antisense compounds, particularly antisense oligonucleotides, targeted to nucleic acids encoding FAN. Methods of using these compounds for modulation of FAN expression and for treatment of diseases associated with expression of FAN are provided.

L8: Entry 47 of 75

File: USPT

Oct 5, 1999

DOCUMENT-IDENTIFIER: US 5962671 A

TITLE: Antisense modulation of fan expression

BSPR:
Pharmaceutical compositions and/or formulations comprising the oligonucleotides of the present invention may also include penetration enhancers in order to enhance the alimentary delivery of the oligonucleotides. Penetration enhancers may be classified as belonging to one of five broad categories, i.e., fatty acids, bile salts, chelating agents, surfactants and non-surfactants (Lee et al., Critical Reviews in Therapeutic Drug Carrier Systems, 1991, 8, 91-192; Muranishi, Critical Reviews in Therapeutic Drug Carrier Systems, 1990, 7, 1-33). One or more penetration enhancers from one or more of these broad categories may be included. Penetration enhancers are described in pending U.S. patent application Ser. No. 08/886,829, filed on Jul. 1, 1997, and pending U.S. patent application Ser. No. 08/961,469, filed on Oct. 31, 1997, both of which are commonly owned with the instant application and both of which are herein incorporated by reference.

48. Document ID: US 5962672 A

L8: Entry 48 of 75 File: USPT Oct 5, 1999

US-PAT-NO: 5962672
DOCUMENT-IDENTIFIER: US 5962672 A
TITLE: Antisense modulation of RhoB expression
DATE-ISSUED: October 5, 1999

US-CL-CURRENT: 536/24.5; 435/375, 536/23.1, 536/24.1, 536/24.3

APPL-NO: 9/ 156979
DATE FILED: September 18, 1998

IN: Coswert; Lex M.

AB: Antisense compounds, compositions and methods are provided for modulating the expression of RhoB. The compositions comprise antisense compounds, particularly antisense oligonucleotides, targeted to nucleic acids encoding RhoB. Methods of using these compounds for modulation of RhoB expression and for treatment of diseases associated with expression of RhoB are provided.

L8: Entry 48 of 75 File: USPT Oct 5, 1999

DOCUMENT-IDENTIFIER: US 5962672 A
TITLE: Antisense modulation of RhoB expression

BSPR:
Pharmaceutical compositions and/or formulations comprising the oligonucleotides of the present invention may also include penetration enhancers in order to enhance the alimentary delivery of the oligonucleotides. Penetration enhancers may be classified as belonging to one of five broad categories, i.e., fatty acids, bile salts, chelating agents, surfactants and non-surfactants (Lee et al., Critical Reviews in Therapeutic Drug Carrier Systems, 1991, 8, 91-192; Muranishi, Critical Reviews in Therapeutic Drug Carrier Systems, 1990, 7, 1-33). One or more penetration enhancers from one or more of these broad categories may be included. Penetration enhancers are described in pending U.S. patent application Ser. No. 08/886,829, filed on Jul. 1, 1997, and pending U.S. patent application Ser. No. 08/961,469, filed on Oct. 31, 1997, both of which are commonly owned with the instant application and both of which are herein incorporated by reference.

49. Document ID: US 5955443 A

L8: Entry 49 of 75 File: USPT Sep 21, 1999

US-PAT-NO: 5955443
DOCUMENT-IDENTIFIER: US 5955443 A
TITLE: Antisense modulation of PECAM-1
DATE-ISSUED: September 21, 1999

US-CL-CURRENT: 514/44; 435/375, 435/6, 435/91.1, 536/23.1, 536/24.31, 536/24.5

APPL-NO: 9/ 044506
DATE FILED: March 19, 1998

IN: Bennett; C. Frank, Condon; Thomas P., Flournoy; Shin Cheng, Zhang; Hong

AB: Compositions and methods for the treatment and diagnosis of diseases or disorders amenable to treatment through modulation of expression of a nucleic acid encoding a platelet endothelial cell adhesion molecule-1 (PECAM-1; also known as CD31 antigen or endoCAM) protein are provided.

L8: Entry 49 of 75 File: USPT Sep 21, 1999

DOCUMENT-IDENTIFIER: US 5955443 A
TITLE: Antisense modulation of PECAM-1

DEPR:
(1) Penetration Enhancers: Pharmaceutical compositions comprising the oligonucleotides of the present invention may also include penetration enhancers in order to enhance the alimentary delivery of the oligonucleotides. Penetration enhancers may be classified as belonging to one of five broad categories, i.e., fatty acids, bile salts, chelating agents, surfactants and non-surfactants (Lee et al., Critical Reviews in Therapeutic Drug Carrier Systems, 1991, 8:91-192; Muranishi, Critical Reviews in Therapeutic Drug Carrier Systems, 1990, 7:1).

50. Document ID: US 5952314 A

L8: Entry 50 of 75

File: USPT

Sep 14, 1999

US-PAT-NO: 5952314
DOCUMENT-IDENTIFIER: US 5952314 A
TITLE: Nutritional product for a person having ulcerative colitis
DATE-ISSUED: September 14, 1999

US-CL-CURRENT: 514/54; 426/567, 426/658, 514/168, 514/188, 514/552, 514/566, 514/725, 514/810, 514/812, 514/813, 514/861

APPL-NO: 9/ 083736
DATE FILED: May 22, 1998

PARENT-CASE:
This application is a continuation-in-part of application Ser. No. 08/221,349, now U.S. Pat. No. 5,780,451, filed on Apr. 1, 1994.

IN: DeMichele; Stephen Joseph, Garleb; Keith Allen, McEwen; John William, Fuller; Martha Kay

AB: An enteral nutritional product for a person having ulcerative colitis contains in combination (a) an oil blend which contains eicosapentaenoic acid (20:5n3) and/or docosahexaenoic acid (22:6n3), and (b) a source of indigestible carbohydrate which is metabolized to short chain fatty acids by microorganisms present in the human colon.

Preferably the nutritional product also contains one or more nutrients which act as antioxidants.

L8: Entry 50 of 75

File: USPT

Sep 14, 1999

DOCUMENT-IDENTIFIER: US 5952314 A
TITLE: Nutritional product for a person having ulcerative colitis

DEPR:
As an indirect source of SCFAs, dietary fiber and indigestible oligosaccharides (indigestable carbohydrate) can elicit certain metabolic benefits. Total parenteral nutrition (TPN) or the administration of a fiber free liquid diet leads to reduced colonic cell proliferation and atrophy. Janne et al., "Colonic Mucosal Atrophy Induced by a Liquid Elemental Diet in Rats", DIGESTIVE DISEASES, Vol. 22, pages 808-812 (1977); Morin et al., "Small Intestinal and Colonic Changes Induced by a Chemically Defined Diet", DIGESTIVE DISEASE SCIENCE, Vol 25, pages 123-128 (1980); Sircar et al., "Effect of Synthetic Diets on Gastrointestinal Mucosal DNA Synthesis in Rats", AMERICAN JOURNAL OF PHYSIOLOGY, Vol. 244, pages G327-G335 (1983); Ryan et al., "Effects of Various Diets on Colonic Growth in Rats", GASTROENTEROLOGY, Vol. 77, pages 658-663 (1979); Storme et al., "The Effects of a Liquid Elemental Diet on Cell Proliferation in the Colon of rats", CELL TISSUE RESEARCH, Vol. 216, Pages 221-225 (1981). Such atrophy could be prevented with the use of indigestible carbohydrate. Indigestible carbohydrate, through the production of SCFAs during their fermentation, can stimulate colonic epithelial cell proliferation. Goodlad et al., "Proliferation Effects of Fibre on the Intestinal Epithelium", GUT, Vol. 28 pages 221-226 (1987); Kripe et al., "Stimulation of Intestinal Mucosal Growth with Intracolonic Infusion of Short-Chain fatty Acids", JOURNAL OF PARENTERAL AND ENTERAL NUTRITION, Vol. 13, pages 109-116 (1989); Scheppach et al., "Effect of Short-chain Fatty Acids on the Human Colonic Mucosa In Vitro", JOURNAL OF PARENTERAL AND ENTERAL NUTRITION, Vol. 16, pages 43-48 (1992); Sakata., "Stimulatory Effect of Short-chain Fatty Acids on Epithelial Cell Proliferation in the Rat Intestine: A Possible Explanation for Trophic Effects of Fermentable Fibre, Gut Microbes and Luminal Trophic Factors", BRITISH JOURNAL OF NUTRITION, Vol. 58, pages 95-103 (1987); Thomas et al., "Effect of enteral Feeding on Intestinal Epithelial Proliferation and fecal Bile Acid Profiles in the Rat", JOURNAL OF PARENTERAL AND ENTERAL NUTRITION, Vol. 17, pages 210-213 (1993). A recent animal study also has demonstrated the benefit of an indigestible carbohydrate in the treatment of experimental colitis. Rolandelli et al., "Comparison of Parenteral Nutrition and Enteral Feeding with Pectin in Experimental Colitis in the Rat", AMERICAN JOURNAL OF CLINICAL NUTRITION, Vol. 47, pages 15-21 (1988). Specifically, the degree of bowel injury in experimental colitis was decreased when rats were fed an enteral diet supplemented with pectin, which is a dietary fiber.

Improvements in outcome may have been due to the SCFAs produced during the fermentation of pectin.

51. Document ID: US 5945290 A

L8: Entry 51 of 75

File: USPT

Aug 31, 1999

US-PAT-NO: 5945290
DOCUMENT-IDENTIFIER: US 5945290 A
TITLE: Antisense modulation of RhoA expression
DATE-ISSUED: August 31, 1999

US-CL-CURRENT: 435/6; 435/325, 435/366, 435/91.1, 536/23.1, 536/24.5

APPL-NO: 9/ 156424
DATE FILED: September 18, 1998

IN: Cowsert; Lex M.

AB: Antisense compounds, compositions and methods are provided for modulating the expression of RhoA. The compositions comprise antisense compounds, particularly antisense oligonucleotides, targeted to nucleic acids encoding RhoA. Methods of using these compounds for modulation of RhoA expression and for treatment of diseases associated with expression of RhoA are provided.

L8: Entry 51 of 75

File: USPT

Aug 31, 1999

DOCUMENT-IDENTIFIER: US 5945290 A

TITLE: Antisense modulation of RhoA expression

BSPR:
Pharmaceutical compositions and/or formulations comprising the oligonucleotides of the present invention may also include penetration enhancers in order to enhance the alimentary delivery of the oligonucleotides. Penetration enhancers may be classified as belonging to one of five broad categories, i.e., fatty acids, bile salts, chelating agents, surfactants and non-surfactants (Lee et al., Critical Reviews in Therapeutic Drug Carrier Systems, 1991, 8, 91-192; Muranishi, Critical Reviews in Therapeutic Drug Carrier Systems, 1990, 7, 1-33). One or more penetration enhancers from one or more of these broad categories may be included. Penetration enhancers are described in pending U.S. patent application Ser. No. 08/886,829, filed on Jul. 1, 1997, and pending U.S. patent application Ser. No. 08/961,469, filed on Oct. 31, 1997, both of which are commonly owned with the instant application and both of which are herein incorporated by reference.

52. Document ID: US 5877309 A

L8: Entry 52 of 75

File: USPT

Mar 2, 1999

US-PAT-NO: 5877309
DOCUMENT-IDENTIFIER: US 5877309 A
TITLE: Antisense oligonucleotides against JNK
DATE-ISSUED: March 2, 1999

US-CL-CURRENT: 536/24.5; 435/371, 435/375, 435/6, 435/91.1, 536/23.1, 536/24.3

APPL-NO: 8/ 910629
DATE FILED: August 13, 1997

IN: McKay; Robert, Dean; Nicholas M.

AB: Compositions and methods for the treatment and diagnosis of diseases or disorders amenable to treatment through modulation of expression of a gene encoding a Jun N-terminal kinase (JNK protein) are provided. Oligonucleotide are herein provided which are specifically hybridizable with nucleic acids encoding JNK1, JNK2 and JNK3, as well as other JNK proteins and specific isoforms thereof. Methods of treating animals suffering from diseases or disorders amenable to therapeutic intervention by modulating the expression of one or more JNK proteins with such oligonucleotide are also provided. Methods for the treatment and diagnosis of diseases or disorders associated with aberrant expression of one or more JNK proteins are also provided. The invention is thus directed to compositions for modulating, diagnostic methods for detecting, and therapeutic methods for inhibiting, the hyperproliferation of cells and formation, development and maintenance of tumors.

L8: Entry 52 of 75

File: USPT

Mar 2, 1999

DOCUMENT-IDENTIFIER: US 5877309 A
TITLE: Antisense oligonucleotides against JNK

DEPR:
Pharmaceutical compositions comprising the oligonucleotides of the present invention may also include penetration enhancers in order to enhance the alimentary delivery of the oligonucleotides. Penetration enhancers may be classified as belonging to one of five broad categories, i.e., fatty acids, bile salts, chelating agents, surfactants and non-surfactants (Lee et al., Critical Reviews in Therapeutic Drug Carrier Systems, 1991, 8:91-192; Muranishi, Critical Reviews in Therapeutic Drug Carrier Systems, 1990, 7:1).

53. Document ID: US 5872241 A

L8: Entry 53 of 75

File: USPT

Feb 16, 1999

US-PAT-NO: 5872241
DOCUMENT-IDENTIFIER: US 5872241 A
TITLE: Multiple component RNA catalysts and uses thereof
DATE-ISSUED: February 16, 1999

US-CL-CURRENT: 536/24.5; 435/375, 435/6, 435/91.31

APPL-NO: 8/ 378235
DATE FILED: January 25, 1995

IN: Pyle; Anna M., Michels; William J.

AB: This invention is directed to a composition for catalyzed oligonucleotide cleavage comprising a synthetic non-naturally occurring oligonucleotide compound. The compound comprises nucleotides whose sequence defines a conserved group II intron catalytic region and nucleotides whose sequence is capable of hybridizing with a predetermined oligonucleotide target sequence to be cleaved, such target sequence not being present within the compound. The composition also includes an appropriate oligonucleotide co-factor. Preferably, the conserved group II intron catalytic region is a group II intron domain I catalytic region. In one embodiment the conserved group II intron domain I catalytic region may further comprise a conserved portion of a group II intron domain II, a group II intron domain III, a group II intron domain IV, a group II intron domain V, or a group II intron domain VI. The invention is also directed to methods of treatment and methods of use of such compounds.

L8: Entry 53 of 75

File: USPT

Feb 16, 1999

DOCUMENT-IDENTIFIER: US 5872241 A

TITLE: Multiple component RNA catalysts and uses thereof

DEPR:
An "effective amount" as used herein refers to that amount which provides a desired effect in a
mammal having a given condition and administration regimen. Compositions comprising effective
amounts together with suitable diluents, preservatives, solubilizers, emulsifiers, adjuvants
and/or carriers useful for therapy. Such compositions are liquids or lyophilized or otherwise
dried formulations and include diluents of various buffer content (e.g., Tris-HCL, acetate
phosphate), pH and ionic strength, additives such as albumin or gelatin to prevent absorption to
surfaces, detergents (e.g., Tween 20, Tween 80, Pluronic F68, bile acid salts), solubilizing
agents (e.g., Thimerosal, benzyl alcohol), bulking substances or tonicity modifiers (e.g.,
lactose, mannitol), covalent attachment of polymers such as polyethylene glycol to the
oligonucleotide, complexation with metal ions, or incorporation of the material into or onto
particulate preparations of polymeric compounds such as polylactic acid, polyglycolic acid,
polyvinyl pyrrolidone, etc. or into liposomes, microemulsions, micelles, unilamellar or
multilamellar vesicles, erythrocyte ghosts, or spheroplasts. Such compositions will influence the
physical state, solubility, stability, rate of in vivo release, and rate of in vivo clearance of
the oligonucleotide. Other ingredients optionally may be added such as antioxidants, e.g.,
ascorbic acid; low molecular weight (less than about ten residues) polypeptides, i.e.,
polyarginine or tripeptides; proteins, such as serum albumin, gelatin, or immunoglobulins; amino
acids; such as glycine, glutamine acid, aspartic acid, or arginine; chelating agents such as
EDTA; and sugar alcohols such as mannitol or sorbitol. Possible sustained release compositions
include formulation of lipophilic depots (e.g., fatty acids, waxes, oils). Also comprehended by
the invention are particulate compositions coated with polymers (e.g., polyoxamers or
polyoxamines) and oligonucleotides coupled to antibodies directed against tissue-specific
receptors, ligands or antigens or coupled to ligands of tissue-specific receptors. Further,
specific nucleotide sequences may be added to target the oligonucleotides of this invention to
the nucleus, cytoplasm or to specific types of cells. Other embodiments of the compositions of
the invention incorporate particulate forms protective coatings, protease inhibitors or
permeation enhancers for various routes of administration, including parenteral, pulmonary, nasal
and oral.

54. Document ID: US 5864028 A

L8: Entry 54 of 75

File: USPT

Jan 26, 1999

US-PAT-NO: 5864028
DOCUMENT-IDENTIFIER: US 5864028 A
TITLE: Degradation resistant mRNA derivatives linked to TNF-.alpha. ribozymes
DATE-ISSUED: January 26, 1999

US-CL-CURRENT: 536/23.1; 435/6, 435/91.31, 536/24.1, 536/24.5

APPL-NO: 8/ 464073
DATE FILED: June 5, 1995

PARENT-CASE:
This application is a continuation-in-part of U.S. Ser. No. 08/428,252, filed Jun. 22, 1995,
which corresponds to International Application No. PCT/AU 93/00567, filed Nov. 3, 1993 which is a
continuation-in-part of U.S. Ser. No. 07/971,058, filed Nov. 3, 1992 and now abandoned.

IN: Sioud; Mouldy

AB: This invention describes compounds active against TNF-.alpha. mRNA. It further
describes RNA molecules capable of conferring stability to RNA in vivo through an endogenous
ribozyme binding protein(s). Possible mRNA molecules to be stabilized include ribozymes,
antisense molecules and mRNA encoding polypeptides useful for protein production. The
ribozymes and antisense molecules described herein are useful in mammals and plants,
particularly suited for viral diseases. Methods of production and methods of use are also
described.

L8: Entry 54 of 75

File: USPT

Jan 26, 1999

DOCUMENT-IDENTIFIER: US 5864028 A
TITLE: Degradation resistant mRNA derivatives linked to TNF-.alpha. ribozymes

DEPR:
An "effective amount" as used herein refers to that amount which provides a desired effect in a
mammal having given condition and administration regimen. Compositions comprising effective
amounts together with suitable diluents, preservatives, solubilizers, emulsifiers, adjuvants
and/or carriers useful for therapy. Such compositions are liquids or lyophilized or otherwise
dried formulations and include diluents of various buffer content (e.g., Tris-HCL, acetate
phosphate), pH and ionic strength, additives such as albumin or gelatin to prevent absorption to
surfaces, detergents (e.g., Tween 20, Tween 80, Pluronic F68, bile acid salts), solubilizing
agents (e.g., Thimerosal, benzyl alcohol), bulking substances or tonicity modifiers (e.g.,
lactose, mannitol), covalent attachment of polymers such as polyethylene glycol to the
oligonucleotide, complexation with metal ions, or incorporation of the material into or onto
particulate preparations of polymeric compounds such as polylactic acid, polyglycolic acid,
polyvinyl pyrrolidone, etc. or into liposomes, microemulsions, micelles, unilamellar or
multimellar vesicles, erythrocyte ghosts, or spheroplasts. Such compositions will influence the
physical state, solubility, stability, rate of in vivo release, and rate of in vivo clearance of
the oligonucleotide. Other ingredients optionally may be added such as antioxidants, e.g.,
ascorbic acid; low molecular weight (less than about ten residues) polypeptides, i.e.,
polyarginine or tripeptides; proteins, such as serum albumin, gelatin, or immunoglobulins; amino
acids; such as glycine, glutamine acid, aspartic acid, or arginine; chelating agents such as

EDTA; and sugar alcohols such as mannitol or sorbitol. Possible sustained release compositions
include formulation of lipophilic depots (e.g., fatty acids, waxes, oils). Also comprehended by
the invention are particulate compositions coated with polymers (e.g., polyoxamers or
polyoxamines) and oligonucleotides coupled to antibodies directed against tissue-specific
receptors, ligands or antigens or coupled to ligands of tissue-specific receptors. Further,
specific nucleotide sequences may be added to target the oligonucleotides of this invention to
the nucleus, cytoplasm or to specific types of cells. Other embodiments of the compositions of
the invention incorporate particulate forms protective coatings, protease inhibitors or
permeation enhancers for various routes of administration, including parenteral, pulmonary, nasal
and oral.

55. Document ID: US 5853974 A

L8: Entry 55 of 75

File: USPT

Dec 29, 1998

US-PAT-NO: 5853974
DOCUMENT-IDENTIFIER: US 5853974 A
TITLE: Enhancement of alkaline phosphatase with SDS in chemiluminescent substrates
DATE-ISSUED: December 29, 1998

US-CL-CURRENT: 435/4; 252/700, 435/183, 435/21, 435/5, 435/6

APPL-NO: 8/ 610955
DATE FILED: March 5, 1996

PARENT-CASE:
CROSS-REFERENCE TO RELATED APPLICATIONS This application is a continuation-in-part of U.S. patent
application Ser. No. 08/472,756, filed Jun. 7, 1995, and now allowed, the disclosure of which is
hereby incorporated by reference in its entirety.

IN: Sheridan; Patrick J.

AB: Methods and compositions for enhancing the chemiluminescence from a stable
1,2-dioxetane triggered to produce a chemiluminescence are disclosed. Indirect, competitive
nucleic acid hybridization assay formats are also described that employ these methods and
compositions.

L8: Entry 55 of 75

File: USPT

Dec 29, 1998

DOCUMENT-IDENTIFIER: US 5853974 A
TITLE: Enhancement of alkaline phosphatase with SDS in chemiluminescent substrates

BSPR:
Bovine or calf intestinal alkaline phosphatase can be separated into five fractions that
correspond to (I) an anchorless dimer, (II) a tetramer with four glycosylphosphatidylinositol
anchor molecules, (III) a tetramer as in (II) with two additional fatty acids bound to inositol
on one-half of the tetramer, (IV) an octamer with two fatty acid molecules per alkaline
phosphatase subunit and (V) an octamer with three fatty acid molecules per alkaline phosphatase
subunit (Bublitz et al., supra). Thus, the number of alkaline phosphatase subunits, the absence
or presence of glycosyl-phosphatidylinositol anchor molecules and the absence or presence of
various numbers of fatty acid molecules per subunit contribute to the heterogeneity of the
alkaline phosphatase population typically used to prepare labeled oligonucleotide probes. The
hydrophobic character of the glycosylphosphatidylinositol anchor molecules and the fatty acid
residues in fractions (II) through (V) are believed to contribute to the background noise in
nucleic acid hybridization assays.

56. Document ID: US 5780451 A

L8: Entry 56 of 75

File: USPT

Jul 14, 1998

US-PAT-NO: 5780451
DOCUMENT-IDENTIFIER: US 5780451 A
TITLE: Nutritional product for a person having ulcerative colitis
DATE-ISSUED: July 14, 1998

US-CL-CURRENT: 514/54; 426/567, 426/658, 514/168, 514/188, 514/552, 514/566, 514/725, 514/810,
514/812, 514/813, 514/861

APPL-NO: 8/ 221349
DATE FILED: April 1, 1994

IN: DeMichele; Stephen Joseph, Garleb; Keith Allen, McEwen; John William, Fuller;
Martha Kay

AB: An enteral nutritional product for a person having ulcerative colitis contains in
combination (a) an oil blend which contains eicosapentaenoic acid (20:5n3) and/or
docosahexaenoic acid (22:6n3), and (b) a source of indigestible carbohydrate which is
metabolized to short chain fatty acids by microorganisms present in the human colon.
Preferably the nutritional product also contains one or more nutrients which act as
antioxidants.

L8: Entry 56 of 75

File: USPT

Jul 14, 1998

DOCUMENT-IDENTIFIER: US 5780451 A
TITLE: Nutritional product for a person having ulcerative colitis

BSPR:
As an indirect source of SCFAs, dietary fiber and indigestible oligosaccharides (indigestable
carbohydrate) can elicit certain metabolic benefits. Total parenteral nutrition (TPN) or the
administration of a fiber free liquid diet leads to reduced colonic cell

proliferation and
atrophy. Janne et al., "Colonic Mucosal Atrophy Induced by a Liquid Elemental Diet in Rats",
DIGESTIVE DISEASES, Vol. 22, No. 9, pages 808-812 (1977); Morin et al., "Small Intestinal and
Colonic Changes Induced by a Chemically Defined Diet", DIGESTIVE DISEASES AND SCIENCES, Vol 25,
No. 2 pages 123-128 (1980); Sircar et al., "Effect of Synthetic Diets on Gastrointestinal Mucosal
DNA Synthesis in Rats", AMERICAN JOURNAL OF PHYSIOLOGY, Vol. 244, pages G327-G335 (1983); Ryan et
al., "Effects of Various Diets on Colonic Growth in Rats", GASTROENTEROLOGY, Vol. 77, pages
658-663 (1979); Storme et al., "The Effects of a Liquid Elemental Diet on Cell Proliferation in
the Colon of rats", CELL AND TISSUE RESEARCH, Vol. 216, pages 221-225 (1981). Such atrophy could
be prevented with the use of indigestible carbohydrate. Indigestible carbohydrate, through the
production of SCFAs during their fermentation, can stimulate colonic epithelial cell
proliferation. Goodlad et al., "Proliferative Effects of Fibre on the Intestinal Epithelium",
GUT, Vol. 28 pages 221-226 (1987); Kripke et al., "Stimulation of Intestinal Mucosal Growth with
Intracolonic Infusion of Short-Chain fatty Acids", JOURNAL OF PARENTERAL AND ENTERAL NUTRITION,
Vol. 13, No. 2, pages 109-116 (1989); Scheppach et al., "Effect of Short-chain Fatty Acids on the
Human Colonic Mucosa In Vitro", JOURNAL OF PARENTERAL AND ENTERAL NUTRITION, Vol. 16, No. 1 pages
43-48 (1992); Sakata., "Stimulatory Effect of Short-chain Fatty Acids on Epithelial Cell
Proliferation in the Rat Intestine: A Possible Explanation for Trophic Effects of Fermentable
Fibre, Gut Microbes and Luminal Trophic Factors", BRITISH JOURNAL OF NUTRITION, Vol. 58, pages
95-103 (1987); Thomas et al., "Effect of enteral Feeding on Intestinal Epithelial Proliferation
and fecal Bile Acid Profiles in the Rat", JOURNAL OF PARENTERAL AND ENTERAL NUTRITION, Vol. 17,
No. 3 pages 210-213 (1993). A recent animal study also has demonstrated the benefit of an
indigestible carbohydrate in the treatment of experimental colitis. Rolandelli et al.,
"Comparison of Parenteral Nutrition and Enteral Feeding with Pectin in Experimental Colitis in
the Rat", AMERICAN JOURNAL OF CLINICAL NUTRITION, Vol. 47, pages 15-21 (1988). Specifically, the
degree of bowel injury in experimental colitis was decreased when rats were fed an enteral diet
supplemented with pectin, which is a dietary fiber. Improvements in outcome may have been due to
the SCFAs produced during the fermentation of pectin.

57. Document ID: US 5780227 A

L8: Entry 57 of 75 File: USPT Jul 14, 1998

US-PAT-NO: 5780227
DOCUMENT-IDENTIFIER: US 5780227 A
TITLE: Oligonucleotide probe conjugated to a purified hydrophilic alkaline phosphatase and uses
thereof
DATE-ISSUED: July 14, 1998

US-CL-CURRENT: 435/6; 536/23.1, 536/24.3

APPL-NO: 8/ 472756
DATE FILED: June 7, 1995

IN: Sheridan; Patrick J., Gagne; Julio C., Anderson; Mary L.

AB: A method of preparing a homogeneous alkaline phosphatase-oligonucleotide probe
conjugate having high specific enzyme activity for use in nucleic acid hybridization assays
is disclosed. Indirect, competitive nucleic acid hybridization assay formats are also
described.

L8: Entry 57 of 75 File: USPT Jul 14, 1998

DOCUMENT-IDENTIFIER: US 5780227 A
TITLE: Oligonucleotide probe conjugated to a purified hydrophilic alkaline phosphatase and uses
thereof

BSPR:
Bovine or calf intestinal alkaline phosphatase can be separated into five fractions that
correspond to (I) an anchorless dimer, (II) a tetramer with four glycosylphosphatidylinositol
anchor molecules, (III) a tetramer as in (II) with two additional fatty acids bound to inositol
on one-half of the tetramer, (IV) an octamer with two fatty acid molecules per alkaline
phosphatase subunit and (V) an octamer with three fatty acid molecules per alkaline phosphatase
subunit (Bublitz et al., supra). Thus, the number of alkaline phosphatase subunits, the absence
or presence of glycosylphosphatidylinositol anchor molecules and the absence or presence of
various numbers of fatty acid molecules per subunit contribute to the heterogeneity of the
alkaline phosphatase population typically used to prepare labeled oligonucleotide probes. The
hydrophobic character of the glycosylphosphatidylinositol anchor molecules and the fatty acid
residues in fractions (II) through (V) are believed to contribute to the background noise in
nucleic acid hybridization assays.

58. Document ID: US 5763028 A

L8: Entry 58 of 75 File: USPT Jun 9, 1998

US-PAT-NO: 5763028
DOCUMENT-IDENTIFIER: US 5763028 A
TITLE: Doubly-packaged easily oxidizable article
DATE-ISSUED: June 9, 1998

US-CL-CURRENT: 428/34.7; 206/484.2, 426/113, 426/124, 426/127, 426/412, 428/336, 428/35.2,
428/35.4, 53/425, 53/427, 53/449

APPL-NO: 8/ 607197
DATE FILED: February 26, 1996

PARENT-CASE:
This application is a continuation of application Ser. No. 08/257,192, filed on Jun. 8, 1994, now

abandoned.

FOREIGN-APPL-PRIORITY-DATA:
COUNTRY
APPL-NO
APPL-DATE
JP
5-163246
June 8, 1993
JP
6-109902
May 24, 1994

IN: Matsumoto; Shinichi, Matsuo; Norishige, Ito; Sachiyo

AB: A doubly-packaged easily oxidizable article and a process for packaging the
article are provided, wherein the deterioration of the easily oxidizable article during heat
sterilization or storage is prevented. A hermetically sealed plastic vessel filled with an
easily oxidizable article is double-packaged in a flexible packaging bag. The bag is made of
a plastic layer having heat-sealing characteristics, an inorganic oxide layer and a plastic
layer laminated in order from the inside to the outside.

L8: Entry 58 of 75
File: USPT
Jun 9, 1998

DOCUMENT-IDENTIFIER: US 5763028 A
TITLE: Doubly-packaged easily oxidizable article

BSPR:
Easily oxidizable articles to be used in the present invention are not specifically limited. Such
articles contain an oxidizable component and may be articles that require heating and/or
sterilization. For example, they include medical and pharmaceutical liquid drugs such as amino
acid preparations, fat emulsion preparations, vitamin preparations, nucleic acid preparations,
enteral feeding nutrient preparations, tube feeding nutrient preparations, and ophthalmic
solutions. A representative example includes amino acid transfusion solutions. Medical equipment
includes a tube to be introduced into a body cavity or an instrument for blood transfusion which
is made of a material susceptible to oxidation. Cosmetic products are also included, such as
milky lotions, lotions and creams containing proteins such as collagen and chitin, amino acids,
amino acid derivatives, unsaturated fatty acids and vitamins. Foods are included, for example,
margarine, mayonnaise and beverages and the like which may optionally be enriched with vitamin E
or unsaturated fatty acids. In addition to these, drugs and foods which require heat reaction are
also included as examples.

59. Document ID: US 5712384 A

L8: Entry 59 of 75
File: USPT
Jan 27, 1998

US-PAT-NO: 5712384
DOCUMENT-IDENTIFIER: US 5712384 A
TITLE: Ribozymes targeting retroviral packaging sequence expression constructs and recombinant
retroviruses containing such constructs
DATE-ISSUED: January 27, 1998

US-CL-CURRENT: 536/24.5; 435/320.1, 435/6, 435/91.31, 536/23.1, 536/23.2

APPL-NO: 8/ 178082
DATE FILED: January 5, 1994

IN: Symonds; Geoffrey P., Sun; Lun-Quan

AB: This invention is directed to a synthetic non-naturally occurring oligonucleotide
compound which comprises nucleotides whose sequence defines a conserved catalytic region and
nucleotides whose sequence is capable of hybridizing with a predetermined target sequence
within a packaging sequence of an RNA virus. Preferably, the viral packaging sequence is a
retrovirus packaging sequence or the HIV-1 Psi packaging sequence. The RNA virus may be
HIV-1, Feline Leukemia Virus, Feline Immunodeficiency Virus or one of the viruses listed in
Table I. The conserved catalytic region may be derived from a hammerhead ribozyme, a hairpin
ribozyme, a hepatitis delta ribozyme, an RNAase P ribozyme, a group I intron, a group II
intron. The invention is also directed to multiple ribozymes, combinations of ribozymes,
with or without antisense, and combinations of ribozymes, with antisense, and TAR decoys,
poly TARs or RRE decoys targeted against the RNA virus and combinations of ribozymes and
antisense targetted against the RNA virus. Vectors are also described. Further, methods of
treatment and methods of use both in vivo and ex vivo are described.

L8: Entry 59 of 75
File: USPT
Jan 27, 1998

DOCUMENT-IDENTIFIER: US 5712384 A
TITLE: Ribozymes targeting retroviral packaging sequence expression constructs and recombinant
retroviruses containing such constructs

DEPR:
An "effective amount" as used herein refers to that amount which provides a desired effect in a
mammal having a given condition and administration regimen. Compositions comprising effective
amounts together with suitable diluents, preservatives, solubilizers, emulsifiers, adjuvants
and/or carriers useful for therapy. Such compositions are liquids or lyophilized or otherwise
dried formulations and include diluents of various buffer content (e.g., Tris-HCL, acetate
phosphate), pH and ionic strength, additives such as albumin or gelatin to prevent absorption to
surfaces, detergents (e.g., Tween 20, Tween 80, Pluronic F68, bile acid salts), solubilizing
agents (e.g., Thimerosal, benzyl alcohol), bulking substances or tonicity modifiers (e.g.,
lactose, mannitol), covalent attachment of polymers such as polyethylene glycol to the
non-naturally occuring oligonucleotide compound, complexation with metal ions, or incorporation
of the material into or onto particulate preparations of polymeric compounds such as polylactic
acid, polyglycolic acid, polyvinyl pyrrolidone, etc. or into liposomes,

microemulsions, micelies,
unilamellar or multilamellar vesicles, erythrocyte ghosts, or spheroplasts. Such compositions
will influence the physical state, solubility, stability, rate of in vivo release, and rate of in
vivo clearance of the oligonucleotide. Other ingredients optionallymay be added such as
antioxidants, e.g., ascorbic acid; low molecular weight (less than about ten residues)
polypeptides, i.e., polyarginine or tripeprides; proteins, such as serum albumin, gelatin, or
immunoglobulins; amino acids; such as glycine, glutamine acid, aspartic acid, or arginine;
chelating agents such as EDTA; and sugar alcohols such as mannitol or sorbitol. Possible
sustained release compositions include formulation of lipophilic depots (e.g., fatty acids,
waxes, oils). Also comprehended by the invention are particulate compositions coated with
polymers (e.g., polyoxamers or polyoxamines) and non-naturally occuring oligonucleotide compound
coupled to antibodies directed against tissue-specific receptors, ligands or antigens or coupled
to ligands of tissue-specific receptors. Further, specific nucleotide sequences may be added to
target the non-naturally occuring oligonucleotide compound of this invention to the nucleus,
plastid, cytoplasm or to specific types of cells. Other embodiments of the compositions of the
invention incorporate particulate forms protective coatings, protease inhibitors or permeation
enhancers for various routes of administration, including parenteral, pulmonary, nasal and oral.

60. Document ID: US 5686253 A

L8: Entry 60 of 75

File: USPT

Nov 11, 1997

US-PAT-NO: 5686253
DOCUMENT-IDENTIFIER: US 5686253 A
TITLE: Method of stabilizing enzyme conjugates
DATE-ISSUED: November 11, 1997

US-CL-CURRENT: 435/7.9; 435/188, 435/6, 435/963, 435/975, 436/822

APPL-NO: 8/ 450744
DATE FILED: May 25, 1995

PARENT-CASE:
This is a continuation of application Ser. No. 07/616,115, filed Nov. 20, 1990 and now abandoned,
the disclosure of which is incorporated herein by reference.

IN: Skold; Carl N., Henson; Margaret, Houts; Thomas Michael, Gibbons; Ian

AB: A method is disclosed for stabilizing a conjugate of an enzyme and a member of a
specific binding pair (enzyme conjugate). The method comprises the step of combining the
enzyme conjugate with an effective amount of an antibody for the enzyme where the antibody
does not substantially inhibit the activity of the enzyme. The invention has application to
assays for the determination of an analyte wherein enzyme conjugates are employed. The
improvement comprises employing as a reagent in the assay an immune complex of an enzyme
conjugate and an antibody for the enzyme where the antibody does not substantially inhibit
the activity of the enzyme. Compositions comprising such an immune complex and kits
comprising such an immune complex in packaged combination with other assay reagents are also
disclosed.

L8: Entry 60 of 75

File: USPT

Nov 11, 1997

DOCUMENT-IDENTIFIER: US 5686253 A
TITLE: Method of stabilizing enzyme conjugates

BSTL:

Name & Class	Distribution Substrate	End-products
Hydrolases Carbohy-	Carbohydrases	drates 1. Amylase
	Pancreas, sal-	Starch, dex- Maltose and iva, malt, etc. trin, etc. dextrins 2.
Lactase Intestinal		
	juice Lactose	Glucose and and mucosa galactose 3. Maltase Intestinal
juice, Maltose	Glucose	
	yeast, etc.	4. Sucrase Intestinal juice Sucrose Glucose and yeast, etc.
fructose 5. Emulsin		
	Plants .beta.-Gluco-	Glucose, etc. sides Nucleic acid and deriva- Nucleases
tives 1. Polynucleo-		
	Pancreatic juice	Nucleic Nucleotides tidase intenstinal juice acid etc. 2.
Nucleoti- Intestinal		
	juice Nucleotides	Nucleotides dase and other tissues and phosphoric acid
3. Nucleoti- Animal		
	tissues Nucleotides	Carbohydrate dase and bases Amino com- pounds and
Amidases	amides	1. Arginase
	Liver Arginine	Ornithine and urea 2. Urease Bacteria, soy- Urea Carbon
dioxide	bean, jack bean	
	and ammonia etc.	3. Glutaminase Liver, etc. Glutamine Glutamic acid and
ammonia	4. Transaminase	
	Animal tissues	Glutamic acid .alpha.-Ketoglutaric and oxalacetic acid,
aspartic acid, etc	acid,	
	etc. Purine basesa	Purine and deriva- Deaminases tives 1. Adenase Animal
tissues Adenine		
	Hypoxanthine and	ammonia 2. Guanase Animal tissues Guanine Xanthine
and ammonia	Peptidases	
	Peptides 1.	Aminopolypep- Yeast, intestines Polypeptides Simpler pep-
tidase etc. tides and a-		
	amino acids 2.	Carboxypep- Pancreas Polypeptides Simpler pep- tidase
tides and amino acids 3.		
	Dipeptidase Plant	and animal Dipeptides Amino acids tissues and bac-
teria 4. Prolinase	Animal	
	tissues Proline	Proline and and yeast peptides simpler pep- tides
Proteinases	Proteins 1. Pepsin	
	Gastric juice	Proteins Proteoses, peptones, etc. 2. Trypsin Pancreatic juice
Proteins,		
	Polypeptides	proteoses, and amino and peptones acids 3. Cathepsin
Animal tissues	Proteins	
	Proteoses, and	peptones 4. Rennin Calf stomach Casein Paracasein 5.
Chymotrypsin	Pancreatic juice	
	Proteins,	Polypeptides proteoses and amino and peptones acids 6. Papain
Papaya, other	Proteins,	
	plants proteoses,	and peptonee 7. Ficin Fig sap Proteins Proteoses, etc.
Alcohols and	Esterases	
	Esters acids 1.	Lipase Pancreas, castor Fats Glycerol and bean, etc. fatty
acids 2. Esterases		
	Liver, etc.	Ethyl buty- Alcohols and rate, etc. acids 3. Phosphatases Plant
and animal	Esters of	
	Phosphate and	tissues phosphoric alcohol acid 4. Sulfatases Animal and
plant Esters of	Sulfuric	
	acid tissues	sulfuric and alcohol acid 5. Cholines- Blood, tissues
Acetylcho-	Choline and	terase
	line acetic acid	Iron Enzymes 1. Catalase All living or- Hydrogen Water
and	ganisms except a	
	peroxide oxygen	few species of microorganisms 2. Cytochrome All living
or- Reduced cy-	Oxidized	
	cyto- oxidase	ganisms except a tochrome C in chrome C and few species

of the presence water
microorganisms of oxygen 3. Peroxidase Nearly all plant A large num- Oxidation pro- cells ber of
phenols duct of aromatic a- substrate mines, etc. and water in the presence of H.sub.2 O.sub.2
Copper Enzymes 1. Tyrosinase Plant and animal Various phe- Oxidation pro- (poly-phenol- tissues
nolic com- duct of sub- oxidase, mono- pounds strate phenoloxidase) 2. Ascorbic Plant tissues
Ascorbic Dehydroascor- acid acid in the bic acid oxidase presence of oxygen Enzymes Containing
Coenzymes I and/or II 1. Alcohol de- Animal and plant Ethyl alco- Acetaldehyde hydrogenase
tissues hol and and other al- hols dehydes 2. Malic dehy- Animal and plant L() Malic Oxalacetic
drogenase tissues acid acid 3. Isocitric Animal and plant L-Isocitric Oxalosuccinic hydrogenase
tissues acid acid 4. Lactic dehy- Animal tissues Lactic acid Pyruvic acid drogenase and yeast 5.
.beta.-Hydroxy- Liver, kidneys, L-.beta.-Hydroxy- Acetoacetic butyric de- and heart butyric acid
hydrogenase acid 6. Glucose de- Animal tissues D-Glucose D-Gluconic hydrogenase acid 7. Robison
Erythrocytes Robison es- Phoapho- ester dehy- and yeast ter (hexo- hexonic drogenase se-6-phos-
phate 8. Glycerophos- Animal tissues Glycero- Phosphogyl- phate dehy- phosphate ceril acid
drogenase 9. Aldehyde de- Liver Aldehydes Acids hydrogenase Enzymes which Reduce Cytochrome 1.
Succinic de- Plants, animals Succinic Fumaric acid

61. Document ID: US 5571536 A

L8: Entry 61 of 75 File: USPT Nov 5, 1996

US-PAT-NO: 5571536
DOCUMENT-IDENTIFIER: US 5571536 A
TITLE: Formulations of compounds as nanoparticulate dispersions in digestible oils or fatty acids
DATE-ISSUED: November 5, 1996

US-CL-CURRENT: 424/489; 424/450, 424/495, 424/498, 424/499, 514/772.1, 514/937, 514/938, 514/951

APPL-NO: 8/ 384057
DATE FILED: February 6, 1995

IN: Eickhoff; W. Mark, Mueller; Karl R., Engers; David A.

AB: Nanoparticulate crystalline drug substances formulated in an aqueos phase
emulsified in oil, are able to be made at less than 1000 nm size and provide increased
bioavailability and lymphatic uptake following oral administration.

L8: Entry 61 of 75 File: USPT Nov 5, 1996

DOCUMENT-IDENTIFIER: US 5571536 A
TITLE: Formulations of compounds as nanoparticulate dispersions in digestible oils or fatty acids

DEPR:
The present invention can be practiced with a wide variety of crystalline materials that are
water insoluble or poorly soluble in water. As used herein, poorly soluble means that the
material has a solubility in aqueous medium of less than about 10 mg/ml, and preferably of less
than about 1 mg/ml. Examples of the preferred crystalline material are as follows. The
therapeutic candidates include
[6-methoxy-4-(1-methylethyl)-3-oxo-1,2-benzisothiazol-2-(3H)-yl]
methyl 2,6-dichlorobenzoate, S,S-dioxide, described in U.S. Pat. No. 5,128,339 (WIN 63394),
closporin, propanolol, antifungals, antivirals, themetherapeutics, oligonucleotides, peptides or
peptidomimetics and proteins. In addition it is believed that vaccines can also be delivered to
the lymphatic system by use of the present invention. The present invention also allows imaging
of the intestinal lymphatic system with X-ray or MRI agents formulated as nanoparticles in
digestible oils or fatty acids. Potential imaging agents include any X-ray or MRI nanoparticulate
core.

62. Document ID: US 5560931 A

L8: Entry 62 of 75 File: USPT Oct 1, 1996

US-PAT-NO: 5560931
DOCUMENT-IDENTIFIER: US 5560931 A
TITLE: Formulations of compounds as nanoparticulate dispersions in digestible oils or fatty acids
DATE-ISSUED: October 1, 1996

US-CL-CURRENT: 424/489; 424/498, 514/937, 514/938, 514/939, 514/943

APPL-NO: 8/ 388088
DATE FILED: February 14, 1995

IN: Eickhoff; W. Mark, Mueller; Karl R., Engers; David A.

AB: Nanoparticulate crystalline drug substances formulated in an aqueos phase
emulsified in oil, are able to be made at less than 1000 nm size and provide increased
bioavailability and lymphatic uptake following oral administration.

L8: Entry 62 of 75 File: USPT Oct 1, 1996

DOCUMENT-IDENTIFIER: US 5560931 A
TITLE: Formulations of compounds as nanoparticulate dispersions in digestible oils or fatty acids

BSPR:
The present invention can be practiced with a wide variety of crystalline materials that are
water insoluble or poorly soluble in water. As used herein, poorly soluble means that the
material has a solubility in aqueous medium of less than about 10 mg/ml, and preferably of less
than about 1 mg/ml. Examples of the preferred crystalline material are as follows. The
therapeutic candidates include

[6-methoxy-4-(1-methylethyl)-3-oxo-1,2-benzisothiazol-2(3H)-yl] methyl 2,6-dichlorobenzoate, S,S-dioxide, described in U.S. Pat. No. 5,128,339 (WIN 63394), cyclosporin, propanolol, antifungals, antivirals, chemotherapeutics, oligonucleotides, peptides or peptidomimetics and proteins. In addition it is believed that vaccines can also be delivered to the lymphatic system by use of the present invention. The present invention also allows imaging of the intestinal lymphatic system with X-ray or MRI agents formulated as nanoparticles in digestible oils or fatty acids. Potential imaging agents include any X-ray or MRI nanoparticulate core.

63. Document ID: US 5534496 A

L8: Entry 63 of 75

File: USPT

Jul 9, 1996

US-PAT-NO: 5534496
DOCUMENT-IDENTIFIER: US 5534496 A
TITLE: Methods and compositions to enhance epithelial drug transport
DATE-ISSUED: July 9, 1996

US-CL-CURRENT: 514/17; 424/434, 514/18, 514/19, 530/330, 530/331

APPL-NO: 8/ 219156
DATE FILED: March 29, 1994

PARENT-CASE:
RELATED APPLICATION This application is a continuation-in-part application of prior application Ser. No. 07/909,908, filed on Jul. 7, 1992, now abandoned.

IN: Lee; Vincent H., Yen; Wan-Ching

AB: Methods and compositions provided for enhancing the transport of drugs (including peptides, oligonucleotides, proteins and conventional drugs) across epithelial cells at mucosal sites. The methods and compositions include the use of a peptide comprising at least two amino acids, such as Pro-Leu-Gly-Pro-Arg or Pro-Leu, and a protective group such as phenylazo-benzyloxycarbonyl, N-methyl, t-butyloxycarbonyl, fluoroenylmethyloxycarbonyl or carbobenzoxy, at the N-terminus, or in a mixture of such peptides in a sufficient amount to enhance the drug transport across epithelial cells at mucosal sites. Preferably, the peptide comprises 2 to 5 amino acids; the N-terminal amino acids are preferably Pro-Leu. The peptide with the drug are introduced to the mucosal site in a physical mixture, a conjugated form or by a microcapsule, microsphere, liposome, cell, bacteria, virus or food vesicle carrier by an oral, nasal, pulmonary, buccal, rectal, transdermal, vaginal or ocular route.

L8: Entry 63 of 75

File: USPT

Jul 9, 1996

DOCUMENT-IDENTIFIER: US 5534496 A
TITLE: Methods and compositions to enhance epithelial drug transport

BSPR:
The entry of high molecular weight active agents (such as peptides, proteins and oligonucleotides) and conventional drugs (such as mannitol, atenolol, fluorescein, insulin, vasopressin, leucine enkephalin, Asu-eel calcitonin, 5-fluorouracil, salicylamide, .beta.-lactones, ampicillin, penicillins, cephalosporins, .beta.-lactamase inhibitors, quinolones, tetracyclines, macrolides, gentamicin, acyclovir, ganciclovir, trifluoropyridine and pentamidine) through mucosal routes (such as oral, nasal, pulmonary, buccal, rectal, transdermal, vaginal and ocular) to the bloodstream is frequently obstructed by poor transport across epithelial cells and concurrent metabolism during transport. Penetration enhancers (substances that facilitate the transport of solute across biological membranes) have been well investigated for the last five decades as reported by Lee et al. (Vincent H. Lee, Akira Yamamoto, and Udaya Bhaskar Kompella, Critical Reviews in Therapeutic Drug Carrier Systems, Vol. 8, No.2, pp. 91-192 (1991), the disclosure of which is herein incorporated by reference). Penetration enhancers are broadly divided into five groups: (1) chelators, e.g. EDTA; (2) surfactants, e.g. sodium lauryl sulfate; (3) bile salts and derivatives, e.g. sodium deoxycholate; (4) fatty acids and derivatives, e.g. oleic acid; and (5) non-surfactants, e.g. unsaturated cyclic ureas. While the penetration enhancers enhance the permeability of the epithelial cell, thereby facilitating the transport of drugs across biological membranes, they also raise a number of pressing safety concerns, such as irritation of mucosal tissues, damages in the mucosal cells, poor damage recovery rates and alterations in mucociliary clearance (Lee et al. at p. 140).

64. Document ID: US 5444054 A

L8: Entry 64 of 75

File: USPT

Aug 22, 1995

US-PAT-NO: 5444054
DOCUMENT-IDENTIFIER: US 5444054 A
TITLE: Method of treating ulcerative colitis
DATE-ISSUED: August 22, 1995

US-CL-CURRENT: 514/54; 426/72, 514/867, 514/925

APPL-NO: 8/ 221440
DATE FILED: April 1, 1994

IN: Garleb; Keith A., Demichele; Stephen J.

AB: A method of improving the nutritional status and reversing the characteristic diarrhea and inflammatory condition in a mammalian creature having ulcerative colitis or inflammation of the colon which contains in combination (a) an oil blend which contains eicosapentaenoic acid (20:5n3) and/or docosahexaenoic acid (22:6n3), and (b) a source of indigestible carbohydrate which is metabolized to short chain fatty acids by microorganisms present in the human colon. Preferably the nutritional product also contains one or more

nutrients which act as antioxidants.

L8: Entry 64 of 75

File: USPT

Aug 22, 1995

DOCUMENT-IDENTIFIER: US 5444054 A
TITLE: Method of treating ulcerative colitis

BSPR:
As an indirect source of SCFAs, dietary fiber and indigestible oligosaccharides (indigestable carbohydrate) can elicit certain metabolic benefits. Total parenteral nutrition (TPN) or the administration of a fiber free liquid diet leads to reduced colonic cell proliferation and atrophy. Janne et al., "Colonic Mucosal Atrophy Induced by a Liquid Elemental Diet in Rats", DIGESTIVE DISEASES, Vol. 22, No. 9, pages 808-812 (1977); Morin et al., "Small Intestinal and Colonic Changes Induced by a Chemically Defined Diet", DIGESTIVE DISEASES AND SCIENCES, Vol. 25, No. 2, pages 123-128 (1980); Sircar et al., "Effect of Synthetic Diets on Gastrointestinal Mucosal DNA Synthesis in Rats", AMERICAN JOURNAL OF PHYSIOLOGY, Vol. 244, pages G327-G335 (1983); Ryan et al., "Effects of Various Diets on Colonic Growth in Rats", GASTROENTEROLOGY, Vol. 77, pages 658-663 (1979); Storme et al., "The Effects of a Liquid Elemental Diet on Cell Proliferation in the Colon of rats", CELL AND TISSUE RESEARCH, Vol. 216, pages 221-225 (1981).
Such atrophy could be prevented with the use of indigestible carbohydrate. Indigestible carbohydrate, through the production of SCFAs during their fermentation, can stimulate colonic epithelial cell proliferation. Goodlad et al., "Proliferative Effects of Fibre on the Intestinal Epithelium", GUT, Vol. 28 pages 221-226 (1987); Kripke et al., "Stimulation of Intestinal Mucosal Growth with Intracolonic Infusion of Short-Chain fatty Acids", JOURNAL OF PARENTERAL AND ENTERAL NUTRITION, Vol. 13, pages 109-116 (1989); Scheppach et al., "Effect of Short-chain Fatty Acids on the Human Colonic Mucosa In Vitro", JOURNAL OF PARENTERAL AND ENTERAL NUTRITION, Vol. 16, No. 1, pages 43-48 (1992); Sakata., "Stimulatory Effect of Short-chain Fatty Acids on Epithelial Cell Proliferation in the Rat Intestine: A Possible Explanantion for Trophic Effects of Fermentable Fibre, Gut Microbes and Luminal Trophic Factors", BRITISH JOURNAL OF NUTRITION, Vol. 58, pages 95-103 (1987); Thomas et al., "Effect of enteral Feeding on Intestinal Epithelial Proliferation and fecal Bile Acid Profiles in the Rat", JOURNAL OF PARENTERAL AND ENTERAL NUTRITION, Vol. 17, No. 3, pages 210-213 (1993). A recent animal study also has demonstrated the benefit of an indigestible carbohydrate in the treatment of experimental colitis. Rolandelli et al., "Comparison of Parenteral Nutrition and Enteral Feeding with Pectin in Experimental Colitis in the Rat", AMERICAN JOURNAL OF CLINICAL NUTRITION, Vol. 47, pages 15-21 (1988). Specifically, the degree of bowel injury in experimental colitis was decreased when rats were fed an enteral diet supplemented with pectin, which is a dietary fiber. Improvements in outcome may have been due to the SCFAs produced during the fermentation of pectin.

65. Document ID: US 5273885 A

L8: Entry 65 of 75

File: USPT

Dec 28, 1993

US-PAT-NO: 5273885
DOCUMENT-IDENTIFIER: US 5273885 A
TITLE: Conjugates of monophenyl thyroid analogs useful in assays
DATE-ISSUED: December 28, 1993

US-CL-CURRENT: 435/7.93; 435/7.9, 435/975

APPL-NO: 7/ 923413
DATE FILED: July 31, 1992

IN: Visor; Jill M., Delizza; Anthony, Ullman; Edwin F.

AB: Methods employing thyroid analog conjugates to enzymes and to immunogenic carriers are provided, which find use in the determination of thyroid compounds normally in physiological fluids, such as serum. The immunogenic carrier conjugates are used to raise antibodies specific to thyroid compounds. The antibodies and enzyme conjugates are used in assays for thyroid compounds. The thyroid analogs are characterized by the presence of only one phenyl ring that contains a hydroxyl substituent and one or two substituents in an ortho relationship to the hydroxyl substituent on the phenyl ring wherein the phenyl ring is conjugated to an enzyme or an immunogenic carrier by a bond or a linking group. Kits for conducting the methods of the present invention are also disclosed.

L8: Entry 65 of 75

File: USPT

Dec 28, 1993

DOCUMENT-IDENTIFIER: US 5273885 A
TITLE: Conjugates of monophenyl thyroid analogs useful in assays

DETL:

_____ NAME & CLASS
DISTRIBUTION SUBSTRATE END-PRODUCTS

_____ Hydrolases
Carbohydrases Carbohydrates Amylase Pancreas, saliva Starch, dextrin, Maltose and malt, etc. etc.
dextrins Lactase Intestinal juice, Lactose Glucose and mucosa galactose Maltase Intestinal juice,
Maltose Glucose yeast, etc. Sucrase Intestinal juice, Sucrose Glucose and yeast, etc. fructose
Emulsin Plants .beta.-Glucosides Glucose, etc. Nucleic acid Nucleases & derivatives Polynucleo-
Pancreatic juice, Nucleic acid Nucleotides tidase intestinal juice, etc. Nucleotidase Intestinal
juice Nucleotides Nucleotides and and other tissues phosphoric acid Nucleotidase Animal tissues
Nucleotides Carbohydrate and bases Amino compounds Amidases and amides Arginase Liver Arginine
Ornithine and urea Urease Bacteria, soybean, Urea Carbon dioxide jack bean, etc. ammonia
Glutaminase Liver, etc. Glutamine Glutamic acid and ammonia Transaminase Animal tissues Glutamic
acid .alpha.-Ketoglutaric and oxalacetic acid, aspartic acid, etc. acid, etc. Purine bases &
Purine Deaminases derivatives Adenase Animal tissues Adenine Hypoxanthine and ammonia Guanase

Animal tissues Guanine Xanthine and ammonia Pentidases Peptides Aminopolypep- Yeast, intestines
Polypeptides Simpler pep- tidase etc. tides and amino acids Carboxypep- Pancreas Polypeptides
Simpler pep- tides peptides and amino acids Dipeptidase Plant and animal Dipeptides Amino acids
tissue and bacteria Prolinase Animal tissues Proline Proline and and yeast peptides simpler
peptides uz,3/9 Proteinases Proteins Pepsin Gastric juice Proteins Proteoses, peptones, etc.
Trypsin Pancreatic juice Proteins, Polypeptides proteoses, and amino acids and peptones Cathepsin
Animal tissues Proteins Proteoses and peptones Rennin Calf stomach Casein Paracasein Chymotrypsin
Pancreatic juice Proteins, Polypeptides proteoses, and amino acids and peptones Papain Papaya,
other Proteins, plants proteoses, and peptones Ficin Fig sap Proteins Proteoses, etc. Alcohols
and Esterases Esters acids Lipase Pancreas, castor Fats Glycerol and bean, etc. fatty acids
Esterases Liver, etc. Ethyl butyrate, Alcohols and etc. acids Phospha- Plant and animal Esters of
Phosphate and tases tissues phosphoric acid alcohol Sulfatases Animal and plant Esters of
Sulfuric acid tissues sulfuric acid and alcohol Cholinesterase Blood, tissues Acetylcholine
Choline and acetic acid Iron Enzymes Catalase All living organ- Hydrogen peroxide Water and isms
except a few oxygen species of microorganisms Cytochrome All living organ- Reduced cytochrome
Oxidized cyto- organisms except C in the presence chrome C and a few species of of oxygen
microorganisms Peroxidase Nearly all plant A large number Oxidation cells of phenols, product of
aromatic amines, substrate and etc. in the water presence of H.sub.2 O.sub.2 Copper Enzymes
Tyrosinase Plant and animal Various phenolic Oxidation (poly-phenol- tissues compounds product of
oxidase, mono- substrate phenoloxidase) Ascorbic Plant tissues Ascorbic acid Dehydroascorbic acid
oxidase in the presence acid of oxygen Enzymes Containing Coenzymes I and/or II Alcohol Animal
and plant Ethyl alcohol Acetaldehyde dehydrogenase tissues and hols and other aldehydes Malic
Animal and plant L() Malic acid Oxalacetic acid dehydrogenase tissues Isocitric Animal and plant
L-Isocitric acid Oxalosuccinic hydrogenase tissue acid acid Lactic Animal tissues Lactic acid
Pyruvic acid dehydrogenase and yeast .beta.-Hydroxy- Liver, kidneys, L-.beta.-Hydroxy-
Acetoacetic butyric and heart butyric acid acid dehydrogenase Glucose Animal tissues D-Glucose
D-Gluconic acid dehydrogenase Robison ester Erythrocytes Robison ester Phosphohexonic
dehydrogenase and yeast (hexose-6-phosphate Glycero- Animal tissues Glycerophosphate
Phosphoglceril phosphate acid dehydrogenase Aldehyde Liver Aldehydes Acids dehydrogenase Enzymes
which Reduce Cytochrome Succinic Plants, animals Succinic acid Fumaric acid dehydrogenase and
microorganisms (as ordinarily prepared) Yellow Enzymes Warburg's old Yeast Reduced co- Oxidized
co- yellow enzyme enzyme II enzyme II and reduced yellow enzyme Diaphorase Bacteria, yeasts
Reduced co- Oxidized co- higher plants enzyme I enzyme I and and animals yellow diaphorase
reduced yellow diaphorase Haas enzyme Yeast Reduced co- Oxidized co- enzyme II enzyme II and
reduced yellow enzyme Xanthinc Animal tissues Hypoxanthine Xanthine, uric oxidase xanthine, al-
acid, acids, dehydes, re- oxidized co- duced coenzyme enzyme I, etc. I, etc. In presence of air,
H.sub.2 O.sub.2 D-amino Animal tissues D-Amino acids + a-Keto-acids + acid oxidase O.sub.2
NH.sub.3, + H.sub.2 O.sub.2

66. Document ID: US 4376825 A

L8: Entry 66 of 75

File: USPT

Mar 15, 1983

US-PAT-NO: 4376825
DOCUMENT-IDENTIFIER: US 4376825 A
TITLE: Enzyme amplification compounds for assays for androgens
DATE-ISSUED: March 15, 1983

US-CL-CURRENT: 435/188

DISCLAIMER DATE: 19970304
APPL-NO: 6/ 221235
DATE FILED: December 30, 1980

PARENT-CASE:
CROSS REFERENCE TO RELATED APPLICATIONS This application is a divisional of application Ser. No.
036,929, filed May 7, 1979, now U.S. Pat. No. 4,282,325, which is a continuation-in-part of
application Ser. No. 857,145, filed Dec. 5, 1977, now U.S. Pat. No. 4,203,802, which is a
continuation-in-part of application Ser. No. 802,683, filed June 2, 1977, now U.S. Pat. No.
4,190,496, which is a continuation of application Ser. No. 760,499, filed Jan. 19, 1977, now U.S.
Pat. No. 4,191,613, which is a continuation-in-part of application Ser. No. 722,964, filed Sept.
13, 1976, now U.S. Pat. No. 4,067,774, which is a continuation of application Ser. No. 481,022,
filed June 20, 1974, now abandoned, which is a divisional of application Ser. No. 304,157, filed
Nov. 6, 1972, now U.S. Pat. No. 3,852,157, which is a continuation-in-part of application Ser.
No. 143,609, filed May 14, 1971, now abandoned.

IN: Rubenstein; Kenneth E., Ullman; Edwin F.

AB: Novel biological assay method for determining the presence of a specific organic
material by employing a modified enzyme for amplification. By employing receptors specific
for one or a group of materials (hereinafter referred to as "ligands") and binding an enzyme
to the ligand or ligand counterfeit to provide an "enzyme-bound-ligand", an extremely
sensitive method is provided for assaying for ligands. The receptor when bound to the
enzyme-bound-ligand substantially inhibits enzymatic activity, providing for different
catalytic efficiencies of enzyme-bound-ligand and enzyme-bound-ligand combined with
receptor., The receptor, ligand and enzyme-bound-ligand are combined in an arbitrary order
and the effect of the presence of ligand on enzymatic activity determined. Various protocols
may be used for assaying for enzymatic activity and relating the result to the amount of
ligand present.

L8: Entry 66 of 75

File: USPT

Mar 15, 1983

DOCUMENT-IDENTIFIER: US 4376825 A
TITLE: Enzyme amplification compounds for assays for androgens

BSTL:

Name & Class
Distribution Substrate End-products

Hydrolases Carbohy-
Carbohydrases drates Amylase Pancreas, sal- Starch, dex- Maltose and iva, malt, etc. trin, etc.
dextrins Lactase Intestinal juice Lactose Glucose and and mucosa galactose Maltase Intestinal
juice, Maltose Glucose yeast, etc. Sucrase Intestinal juice Glucose and yeast, etc. Sucrose
fructose Emulsin Plants .beta.-Gluco- Glucose, etc. sides Nucleases Nucleic acid and deriva-
tives Polynucleo- Pancreatic juice Nucleic Nucleotides tidase intenstinal juice acid etc.
Nucleoti- Intestinal juice Nucleotides Nucleotides and dase and other tissues phosphoric acid
Nucleotidase Animal tissues Nucleotides Carbohydrate and bases Amidases Amino com- pounds and
amides Arginase Liver Arginine Ornithine and urea Urease Bacteria, soy- Urea Carbon dioxide bean,
jack bean and ammonia etc. Glutami- Liver, etc. Glutamine Glutamic acid nase and ammonia
Transaminase Animal tissues Glutamic acid .alpha.-Ketoglutaric and oxalacetic acid, aspartic
acid, etc. acid, etc. Purine Deaminases Purine basesa and deriva- tives Adenase Animal tissues
Adenine Hypoxanthine and ammonia Guanase Animal tissues Guanine Xanthine and ammonia Peptidases
Peptides Aminopolypep- Yeast, intestines Polypeptides Simpler pep- tidase etc. tides and a- mino
acids Carboxypep- Pancreas Polypeptides Simpler pep- tidase tides and amino acids Dipeptidase
Plant and animal Dipeptides Amino acids tissues and bac- teria Prolinase Animal tissues Proline
Proline and and yeast peptides simpler pep- tides Proteinases Proteins Pepsin Gastric juice
Proteins Proteoses, peptones, etc. Trypsin Pancreatic juice Proteins, Polypeptides proteoses, and
amino acids and peptones Cathepsin Animal tissues Proteins Proteoses, and peptones Rennin Calf
stomach Casein Paracasein Chymotrypsin Pancreatic juice Proteins, Polypeptides proteoses and
amino acids and peptones Papain Papaya, other Proteins, plants proteoses, and peptones Ficin Fig
sap Proteins Proteoses, etc. Esterases Esters Alcohols and acids Lipase Pancreas, castor Fats
Glycerol and bean, etc. fatty acids Esterases Liver, etc. Ethyl buty- Alcohols and rate, etc.
acids Phosphatases Plant and animal Esters of Phosphate and tissues phosphoric alcohol acid
Sulfatases Animal and plant Esters of Sulfuric acid tissues sulfuric and alcohol acid Cholines-
Blood, tissues Acetylcho- Choline and terase line acetic acid Iron Enzymes Catalase All living
or- Hydrogen Water and ganisms except a peroxide oxygen few species of microorganisms Cytochrome
All living or- Reduced cy- Oxidized cyto- oxidase ganisms except a tochrome C in chrome C and few
species of the presence water microorganisms of oxygen Peroxidase Nearly all plant A large num-
Oxidation pro- cells ber of phenols duct of aromatic a- substrate mines, etc. and water in the
pre- sence of H.sub.2 O.sub.2 Copper Enzymes Tyrosinase Plant and animal Various phe- Oxidation
pro- (poly-phenol- tissues nolic com- duct of sub- oxidase, mono- pounds strate phenoloxidase)
Ascorbic acid Plant tissues Ascorbic Dehydroascor- oxidase acid in the bic acid presence of
oxygen Enzymes Containing Coenzymes I and/or II Alcohol dehy- Animal and plant Ethyl alco-
Acetaldehyde drogenase tissues hol and and other al- other alco- dehydes hols Malic dehy- Animal
and plant L( ) Malic Oxalacetic drogenase tissues acid acid Isocitric de- Animal and plant
L-Isocitric Oxalosuccinic hydrogenase tissues acid acid Lactic dehy- Animal tissues Lactic acid
Pyruvic acid drogenase and yeast .beta.-Hydroxy- Liver, kidneys, L-.beta.-Hydroxy- Acetoacetic
butyric dehydro- and heart butyric acid genase acid Glucose dehy- Animal tissues D-Glucose
D-Gluconic drogenase acid Robison ester Erythrocytes Robison es- Phosphohexonic dehydrogenase and
yeast ter (hexo- acid se-6-phos- phate Glycerophos- Animal tissues Glycero- Phosphogylceril phate
dehy- phosphate acid drogenase Aldehyde de- Liver Aldehydes Acids hydrogenase Enzymes which
Reduce Cytochrome Succinic de- Plants, animals Succinic Fumaric acid hydrogenase and microor-
acid (as ordinarily ganisms prepared)

67. Document ID: US 4282325 A

L8: Entry 67 of 75

File: USPT

Aug 4, 1981

US-PAT-NO: 4282325
DOCUMENT-IDENTIFIER: US 4282325 A
TITLE: Enzyme bound corticosteroids
DATE-ISSUED: August 4, 1981

US-CL-CURRENT: 435/188; 930/260, 930/40

APPL-NO: 6/ 036929
DATE FILED: May 7, 1979

PARENT-CASE:
CROSS REFERENCE TO RELATED APPLICATION This application is a continuation-in-part of application
Ser. No. 857,145, filed Dec. 5, 1977, now U.S. Pat. No. 4,203,802, which application is a
divisional of application Ser. No. 722,964, filed Sept. 13, 1976, now U.S. Pat. No. 4,067,774,
which was a continuation of application Ser. No. 481,022, filed June 20, 1974, now abandoned,
which was a divisional of application Ser. No. 304,157, filed Nov. 6, 1972, now U.S. Pat. No.
3,852,157, which was a continuation-in-part of application Ser. No. 143,609, filed May 14, 1971,
now abandoned, and is a continuation-in-part of application Ser. No. 802,683, filed June 2, 1977,
now U.S. Pat. No. 4,190,496, which is a continuation of application Ser. No. 760,499, filed Jan.
19, 1977, now U.S. Pat. No. 4,191,613, which was a continuation-in-part of application Ser. No.
722,964, which file history is set forth above.

IN: Rubenstein; Kenneth E., Ullman; Edwin F.

AB: Novel biological assay method for determining the presence of a specific organic
material by employing a modified enzyme for amplification. By employing receptors specific
for one or a group of materials (hereinafter referred to as "ligands") and binding an enzyme
to the ligand or ligand counterfeit to provide an "enzyme-bound-ligand", an extremely
sensitive method is provided for assaying for ligands. The receptor when bound to the
enzyme-bound-ligand substantially inhibits enzymatic activity, providing for different
catalytic efficiencies of enzyme-bound-ligand and enzyme-bound-ligand combined with
receptor., The receptor, ligand and enzyme-bound-ligand are combined in

an arbitrary order
and the effect of the presence of ligand on enzymatic activity determined. Various protocols
may be used for assaying for enzymatic activity and relating the result to the amount of
ligand present.

L8: Entry 67 of 75

File: USPT

Aug 4, 1981

DOCUMENT-IDENTIFIER: US 4282325 A
TITLE: Enzyme bound corticosteroids

BSTL:

_ _____ Name & Class
Distribution Substrate End-products

_____ Hydrolases Carbohy-
Carbohydrases drates 1. Amylase Pancreas, sal- Starch, dex- Maltose and iva, malt, etc. trin,
etc. dextrins 2. Lactase Intestinal juice Lactose Glucose and and mucosa galactose 3. Maltase
Intestinal juice, Maltose Glucose yeast, etc. 4. Sucrase Intestinal juice Glucose and yeast, etc.
Sucrose fructose 5. Emulsin Plants .beta.-Gluco- Glucose, etc. sides Nucleases Nucleic acid and
deriva- tives 1. Polynucleo- Pancreatic juice Nucleic Nucleotides tidase intestinal juice acid
etc. 2. Nucleoti- Intestinal juice Nucleotides Nucleotides and dase and other tissues phosphoric
acid 3. Nucleotidase Animal tissues Nucleotides Carbohydrate and bases Amidases Amino com- pounds
and amides 1. Arginase Liver Arginine Ornithine and urea 2. Urease Bacteria, soy- Urea Carbon
dioxide bean, jack bean and ammonia etc. 3. Glutami- Liver, etc. Glutamine Glutamic acid nase and
ammonia 4. Transaminase Animal tissues Glutamic acid .alpha.-Ketoglutaric and oxalacetic acid,
aspartic acid, etc. acid, etc. Purine Deaminases Purine basesa and derivatives 1. Adenase
Animal tissues Adenine Hypoxanthine and ammonia 2. Guanase Animal tissues Guanine Xanthine and
ammonia Peptidases Peptides 1. Aminopolypep- Yeast, intestines Polypeptides Simpler pep- tidase
etc. tides and a- mino acids 2. Carboxypep- Pancreas Polypeptides Simpler pep- tidase tides and
amino acids 3. Dipeptidase Plant and animal Dipeptides Amino acids tissues and bac- teria 4.
Prolinase Animal tissues Proline Proline and and yeast peptides simpler pep- tides Proteinases
Proteins 1. Pepsin Gastric juice Proteins Proteoses, peptones, etc. 2. Trypsin Pancreatic juice
Proteins, Polypeptides. - proteoses, and amino acids and peptones 3. Cathepsin Animal tissues
Proteins Proteoses, and peptones 4. Rennin Calf stomach Casein Paracasein 5. Chymotrypsin
Pancreatic juice Proteins, Polypeptides proteoses and amino acids and peptones 6. Papain Papaya,
other Proteins, plants proteoses, and peptones 7. Ficin Fig sap Proteins Proteoses, etc.
Esterases Esters Alcohols and acids 1. Lipase Pancreas, castor Fats Glycerol and bean, etc. fatty
acids 2. Esterases Liver, etc. Ethyl buty- Alcohols and rate, etc. acids 3. Phosphatses Plant and
animal Esters of Phosphate and tissues phosphoric alcohol acid 4. Sulfatases Animal and plant
Esters of Sulfuric acid tissues sulfuric and alcohol acid 5. Cholines- Blood, tissues Acetylcho-
Choline and terase line acetic acid Iron Enzymes 1. Catalase All living or- Hydrogen Water and
ganisms except a peroxide oxygen few species of microorganisms 2. Cytochrome All living or-
Reduced cy- Oxidized cyto- oxidase ganisms except a tochrome C in chrome C and few species of the
presence water microorganisms of oxygen 3. Peroxidase Nearly all plant A large num- Oxidation
pro- cells ber of phenols duct of aromatic a- substrate mines, etc. and water in the pre- sence
of H.sub.2 O.sub.2 Copper Enzymes 1. Tyrosinase Plant and animal Various phe- Oxidation pro-
(polyphenol- tissues nolic com- duct of sub- oxidase, mono- pounds strate phenoloxidase) 2.
Ascorbic acid Ascorbic Dehydroascor- oxidase Plant tissues acid in the bic acid presence of
oxygen Enzymes Containing Coenzymes I and/or II 1. Alcohol dehy- Animal and plant Ethyl alco-
Acetaldehyde drogenase tissues hol and and other al- other alco- dehydes hols 2. Malic dehy-
Animal and plant L( )Malic Oxalacetic drogenase tissues acid acid 3. Isocritric de- Animal and
plant L-Isocitric Oxalosuccinic hydrogenase tissues acid acid 4. Lactic dehy- drogenase Animal
tissues Lactic acid Pyruvic acid and yeast 5. .beta.-Hydroxy- Liver, kidneys, L-.beta.-Hydroxy-
Acetoacetic butyric dehydro- and heart butyric acid genase acid 6. Glucose dehy- Animal tissues
D-Glucose D-Gluconic drogenase acid 7. Robison ester Erythrocytes Robison es- Phosphohexonic
dehydrogenase and yeast

68. Document ID: US 4203802 A

L8: Entry 68 of 75

File: USPT

May 20, 1980

US-PAT-NO: 4203802
DOCUMENT-IDENTIFIER: US 4203802 A
TITLE: Inhibitable enzyme amplification assay
DATE-ISSUED: May 20, 1980

US-CL-CURRENT: 435/188; 435/7.9, 435/964, 930/260, 930/40

APPL-NO: 5/ 857145
DATE FILED: December 5, 1977

PARENT-CASE:
CROSS REFERENCE TO RELATED APPLICATION This application is a divisional of application Ser. No.
722,964, filed Sept. 13, 1976, now U.S. Pat. No. 4,067,774 which was a continuation of
application Ser. No. 481,022, filed June 20, 1974, now abandoned, which was a divisional of
application Ser. No. 304,157, filed Nov. 6, 1972, now U.S. Pat. No. 3,852,157, which was a
continuation in part of application Ser. No. 143,609, filed May 14, 1971, now abandoned, and is a
continuation in part of application Ser. No. 802,683, filed June 2, 1977, now U.S. Pat. No.
4,190,496 which is a continuation of application Ser. No. 760,499, filed Jan. 19, 1977, which was
a continuation of application Ser. No. 722,964, filed Sept. 13, 1976, which file history is set
forth above.

IN: Rubenstein; Kenneth E., Ullman; Edwin F.

AB: Novel biological assay method for determining the presence of a specific organic
material by employing a modified enzyme for amplification. By employing receptors specific

for one or a group of materials (hereinafter referred to as "ligands") and binding an enzyme
to the ligand or ligand counterfeit to provide an "enzyme-bound-ligand", an extremely
sensitive method is provided for assaying for ligands. The receptor when bound to the
enzyme-bound-ligand substantially inhibits enzymatic activity, providing for different
catalytic efficiencies of enzyme-bound-ligand and enzyme-bound-ligand combined with
receptor., The receptor, ligand and enzyme-bound-ligand are combined in an arbitrary order
and the effect of the presence of ligand on enzymatic activity determined. Various protocols
may be used for assaying for enzymatic activity and relating the result to the amount of
ligand present.

L8: Entry 68 of 75

File: USPT

May 20, 1980

DOCUMENT-IDENTIFIER: US 4203802 A
TITLE: Inhibitable enzyme amplification assay

BSTL:

Name & Class
Distribution Substrate End-products

Hydrolases
Carbohydrases Carbohy- drates 1. Amylase Pancreas, sal- Starch, dex- Maltose and iva, malt, etc.
trin, etc. dextrins 2. Lactase Intestinal juice Lactose Glucose and and mucosa galactose 3.
Maltase Intestinal juice, Maltose Glucose yeast, etc. 4. Sucrase Intestinal juice Glucose and
yeast, etc. Sucrose fructose 5. Emulsin Plants .beta.-Gluco- Glucose, etc. sides Nucleases
Nucleic acid and deriva- tives 1. Polynucleo- Pancreatic juice Nucleic Nucleotides tidase
intestinal juice acid etc. 2. Nucleoti- Intestinal juice Nucleotides Nucleotides and dase and
other tissues phosphoric acid 3. Nucleotidase Animal tissues Nucleotides Carbohydrate and bases
Amidases Amino com- pounds and amides 1. Arginase Liver Arginine Ornithine and urea 2. Urease
Bacteria, soy- Urea Carbon dioxide bean, jack bean and ammonia etc. 3. Glutami- Liver, etc.
Glutamine Glutamic acid nase and ammonia 4. Transaminase Animal tissues Glutamic acid
.alpha.-Ketoglutaric and oxalacetic acid, aspartic acid, etc. acid, etc. Purine Deaminases Purine
basesa and deriva- tives 1. Adenase Animal tissues Adenine Hypoxanthine and ammonia 2. Guanase
Animal tissues Guanine Xanthine and ammonia Peptidases Peptides 1. Aminopolypep- Yeast,
intestines Polypeptides Simpler pep- tidase etc. tides and a- mino acids 2. Carboxypep- Pancreas
Polypeptides Simpler pep- tidase tides and amino acids 3. Dipeptidase Plant and animal Dipeptides
Amino acids tissues and bac- teria 4. Prolinase Animal tissues Proline Proline and and yeast
peptides simpler pep- tides Proteinases Proteins 1. Pepsin Gastric juice Proteins Proteoses,
peptones, etc. 2. Trypsin Pancreatic juice Proteins, Polypeptides proteoses, and amino acid and
peptones 3. Cathepsin Animal tissues Proteins Proteoses, and peptones 4. Rennin Calf stomach
Casein Paracasein 5. Chymotrypsin Pancreatic juice Proteins, Polypeptides proteoses and amino
acid and peptones 6. Papain Papaya, other Proteins, plants proteoses, and peptones 7. Ficin Fig
sap Proteins Proteoses, etc. Esterases Esters Alcohols and acids 1. Lipase Pancreas, castor Fats
Glycerol and bean, etc. fatty acids 2. Esterases Liver, etc. Ethyl buty- Alcohols and rate, etc.
acids 3. Phosphatases Plant and animal Esters of Phosphate and tissues phosphoric alcohol acid 4.
Sulfatases Animal and plant Esters of Sulfuric acid tissues sulfuric and alcohol acid 5.
Cholines- Blood, tissues Acetylcho- Choline and terase line acetic acid Iron Enzymes 1. Catalase
All living or- Hydrogen Water and ganisms except a peroxide oxygen few species of microorganisms
2. Cytochrome All living or- Reduced cy- Oxidized cyto- oxidase ganisms except a tochrome C in
chrome C and few species of the presence water microorganisms of oxygen 3. Peroxidase Nearly all
plant A large num- Oxidation pro- cells ber of phenols duct of aromatic a- substrate mines, etc.
and water in the pre- sence of H.sub.2 O.sub.2 Copper Enzymes 1. Tyrosinase Plant and animal
Various phe- Oxidation pro- (poly-phenol- tissues nolic com- duct of sub- oxidase, mono- pounds
strate phenoloxidase) 2. Ascorbic acid Ascorbic Dehydroascor- oxidase Plant tissues acid in the
bic acid presence of oxygen Enzymes Containing Coenzymes I and/or II 1. Alcohol dehy- Animal and
plant Ethyl alco- Acetaldehyde drogenase tissues hol and and other al- other alco- dehydes hols
2. Malic dehy- Animal and plant L(') Malic Oxalacetic drogenase tissues acid acid 3. Isocritric
de- Animal and plant L-Isocitric Oxalosuccinic hydrogenase tissues acid acid 4. Lactic dehy-
drogenase Animal tissues Lactic acid Pyruvic acid and yeast 5. .beta.-Hydroxy- Liver, kidneys,
L-.beta.-Hydroxy- Acetoacetic butyric dehydro- and heart butyric acid genase acid 6. Glucose
dehy- Animal tissues D-Glucose D-Gluconic drogenase acid 7. Robison ester Erythrocytes Robison
es- Phosphohexonic dehydrogenase and yeast ter (hexo- acid se-6-phos- phate 8. Glycerophos-
Animal tissues Glycero- Phosphogylceric

69. Document ID: US 4190496 A

L8: Entry 69 of 75

File: USPT

Feb 26, 1980

US-PAT-NO: 4190496
DOCUMENT-IDENTIFIER: US 4190496 A
TITLE: Homogeneous enzyme assay for antibodies
DATE-ISSUED: February 26, 1980

US-CL-CURRENT: 435/7.9; 435/7.4, 435/966, 930/260, 930/40

DISCLAIMER DATE: 19910618
APPL-NO: 5/ 802683
DATE FILED: June 2, 1977

PARENT-CASE:
CROSS REFERENCE TO RELATED APPLICATION This application is a continuation-in-part application of
Ser. No. 760,499, filed Jan. 19, 1977, which was a continuation-in-part of Application Ser. No.
722,964, filed Sept. 13, 1976, now U.S. Pat. No. 4,067,774 which was a continuation application
of divisional application Ser. No. 481,022, filed June 20, 1974, now abandoned and a
continuation-in-part application of Ser. No. 689,234, filed May 24, 1976, now U.S. Pat. No.
4,046,636 which was a continuation-in-part application of application Ser.

No. 481,022, filed
June 20, 1974 now abandoned, which application is a divisional application Ser. No. 304,157,
filed Nov. 6, 1972, now U.S. Pat. No. 3,852,157, which in turn was a continuation-in-part of
application Ser. No. 143,609, filed May 14, 1971, now abandoned.

IN: Rubenstein; Kenneth E., Ullman; Edwin F.

AB: Novel biological assay method for determining the presence of a specific organic
material by employing a modified enzyme for amplification. By employing receptors specific
for one or a group of materials (hereinafter referred to as "ligands") and binding an enzyme
to the ligand or ligand counterfeit to provide an "enzyme-bound-ligand", an extremely
sensitive method is provided for assaying for ligands. The receptor when bound to the
enzyme-bound-ligand substantially inhibits enzymatic activity, providing for different
catalytic efficiencies of enzyme-bound-ligand and enzyme-bound-ligand combined with
receptor., The receptor, ligand and enzyme-bound-ligand are combined in an arbitrary order
and the effect of the presence of ligand on enzymatic activity determined. Various protocols
may be used for assaying for enzymatic activity and relating the result to the amount of
ligand present., The subject method may also be used for determining receptors, employing
the same procedure, except for not including receptor as a reagent.

L8: Entry 69 of 75

File: USPT

Feb 26, 1980

DOCUMENT-IDENTIFIER: US 4190496 A
TITLE: Homogeneous enzyme assay for antibodies

BSTL:

_____ Name & Class
Distribution Substrate End-products

_____ Hydrolases
Carbohydrases Carbohy- drates 1. Amylase Pancreas, sal- Starch, dex- Maltose and iva, malt, etc.
trin, etc. dextrins 2. Lactase Intestinal juice Lactose Glucose and and mucosa galactose 3.
Maltase Intestinal juice, Maltose Glucose yeast, etc. 4. Sucrase Intestinal juice Glucose and
yeast, etc. Sucrose fructose 5. Emulsin Plants .beta.-Gluco- Glucose, etc. sides Nucleases
Nucleic acid and deriva- tives 1. Polynucleo- Pancreatic juice Nucleic Nucleotides tidase
intestinal juice acid etc. 2. Nucleoti- Intestinal juice Nucleotides Nucleotides and dase and
other tissues phosphoric acid 3. Nucleotidase Animal tissues Nucleotides Carbohydrate and bases
Amidases Amino com- pounds and amides 1. Arginase Liver Arginine Ornithine and urea 2. Urease
Bacteria, soy- Urea Carbon dioxide bean, jack bean and ammonia etc. 3. Glutami- Liver, etc.
Glutamine Glutamic acid nase and ammonia 4. Transaminase Animal tissues Glutamic acid
.alpha.-Ketoglutaric and oxalacetic acid, aspartic acid, etc. acid, etc. Purine Deaminases Purine
basesa and deriva- tives 1. Adenase Animal tissues Adenine Hypoxanthine and ammonia 2. Guanase
Animal tissues Guanine Xanthine and ammonia Peptidases Peptides 1. Aminopolypep- Yeast,
intestines Polypeptides Simpler pep- tidase etc. tides and a- mino acids 2. Carboxypep- Pancreas
Polypeptides Simples pep- tidase tides and amino acids 3. Dipeptidase Plant and animal Dipeptides
Amino acids tissues and bac- teria 4. Prolinase Animal tissues Proline Proline and and yeast
peptides simpler pep- tides Proteinases Proteins 1. Pepsin Gastric juice Proteins Proteoses,
peptones, etc. 2. Trypsin Pancreatic juice Proteins, Polypeptides proteoses, and amino acid and
peptones 3. Cathepsin Animal tissues Proteins Proteoses, and peptones 4. Rennin Calf stomach
Casein Paracasein 5. Chymotrypsin Pancreatic juice Proteins, Polypeptides proteoses and amino
acid and peptones 6. Papain Papaya, other Proteins, plants proteoses, and peptones 7. Ficin Fig
sap Proteins Proteoses, etc. Esterases Esters Alcohols and acids 1. Lipase Pancreas, castor Fats
Glycerol and bean, etc. fatty acids 2. Esterases Liver, etc. Ethyl buty- Alcohols and rate, etc.
acids 3. Phosphatases Plant and animal Esters of Phosphate and tissues phosphoric alcohol acid 4.
Sulfatases Animal and plant Esters of Sulfuric acid tissues sulfuric and alcohol acid 5.
Cholines- Blood, tissues Acetylcho- Choline and terase line acetic acid Iron Enzymes 1. Catalase
All living or- Hydrogen Water and ganisms except a peroxide oxygen few species of microorganisms
2. Cytochrome All living or- Reduced cy- Oxidized cyto- oxidase ganisms except a tochrome C in
chrome C and few species of the presence water microorganisms of oxygen 3. Peroxidase Nearly all
plant A large num- Oxidation pro- cells ber of phenols duct of aromatic a- substrate mines, etc.
and water in the pre- sence of H.sub.2 O.sub.2 Copper Enzymes 1. Tyrosinase Plant and animal
Various phe- Oxidation pro- (poly-phenol- tissues nolic com- duct of sub- oxidase, mono- pounds
strate phenoloxidase) 2. Ascorbic acid Ascorbic Dehydroascor- oxidase Plant tissues acid in the
bic acid presence of oxygen Enzymes Containing Coenzymes I and/or II 1. Alcohol dehy- Animal and
plant Ethyl alco- Acetaldehyde drogenase tissues hol and and other al- other alco- dehydes hols
2. Malic dehy- Animal and plant L(.DELTA.) Malic Oxalacetic drogenase tissues acid acid 3.
Isocritiric de- Animal and plant L-Isocitric Oxalosuccinic hydrogenase tissues acid acid 4.
Lactic dehy- drogenase Animal tissues Lactic acid Pyruvic acid and yeast 5. .beta.-Hydroxy-
Liver, kidneys, L-.beta.-Hydroxy- Acetoacetic butyric dehydro- and heart butyric acid genase acid
6. Glucose dehy- Animal tissues D-Glucose D-Gluconic drogenase acid 7. Robison ester Erythrocytes
Robison es- Phosphohexonic dehydrogenase and yeast ter (hexo- acid se-6-phos- phate 8.
Glycerophos- Animal tissues Glycero- Phosphogylceric phate dehy- phosphate acid drogenase 9.
Aldehyde de- hydrogenase Liver Aldehydes Acids Enzymes which Reduce Cytochrome 1. Succinic de-
Plants, animals Succinic Fumaric acid hydrogenase and microor- acid (as ordinarily ganisms
prepared) Yellow Enzymes 1. Warburg's old Yeast Reduced co- Oxidized co- yellow enzyme enzyme II
enzyme II and reduced yellow enzyme 2. Diaphorase Bacteria, Reduced co-

70. Document ID: US 4067774 A

L8: Entry 70 of 75

File: USPT

Jan 10, 1978

US-PAT-NO: 4067774
DOCUMENT-IDENTIFIER: US 4067774 A
TITLE: Compounds for enzyme amplification assay
DATE-ISSUED: January 10, 1978

US-CL-CURRENT: 435/188; 435/189, 435/190, 435/195, 435/7.9, 435/964; 930/260, 930/40

APPL-NO: 5/ 722964
DATE FILED: September 13, 1976

PARENT-CASE:
CROSS REFERENCE TO RELATED APPLICATION This application is a continuation, of application Ser.
No. 481,022, filed June 20, 1974, now abandoned which is a division of application Ser. No.
304,157, filed Nov. 6, 1972 now U.S. Pat. No. 3,852,157 which is a Continuation-in-Part of
Application Ser. No. 143,609, filed May 14, 1971, now abandoned.

IN: Rubenstein; Kenneth E., Ullman; Edwin F.

AB: Novel biological assay method for determining the presence of a specific organic
material by employing a modified enzyme for amplification. By employing receptors specific
for one or a group of materials (hereinafter referred to as "ligands") and binding an enzyme
to the ligand or ligand counterfeit to provide an "enzyme-bound-ligand", an extremely
sensitive method is provided for assaying for ligands. The receptor when bound to the
enzyme-bound-ligand substantially inhibits enzymatic activity, providing for different
catalytic efficiencies of enzyme-bound-ligand and enzyme-bound-ligand combined with
receptor., The receptor, ligand and enzyme-bound-ligand are combined in an arbitrary order
and the effect of the presence of ligand on enzymatic activity determined. Various protocols
may be used for assaying for enzymatic activity and relating the result to the amount of
ligand present.

L8: Entry 70 of 75

File: USPT

Jan 10, 1978

DOCUMENT-IDENTIFIER: US 4067774 A
TITLE: Compounds for enzyme amplification assay

BSTL:

Name & Class
Distribution Substrate End-products

Hydrolases
Carbohydrases Carbohy- drates 1. Amylase Pancreas, sal- Starch, dex- Maltose and iva, malt, etc.
trin, etc. dextrins 2. Lactase Intestinal juice Lactose Glucose and and mucosa galactose 3.
Maltase Intestinal juice, Maltose Glucose yeast, etc. 4. Sucrase Intestinal juice Glucose and
yeast, etc. Sucrose fructose 5. Emulsion Plants .beta.-Gluco- Glucose, etc. sides Nucleases
Nucleic acid and deriva- tives 1. Polynucleo- Pancreatic juice Nucleic Nucleotides tidase
intestinal juice acid etc. 2. Nucleoti- Intestinal juice Nucleotides Nucleotides and dase and
other tissues phosphoric acid 3. Nucleotidase Animal tissues Nucleotides Carbohydrate and bases
Amidases Amino com- pounds and amides 1. Arginase Liver Arginine Ornithine and urea 2. Urease
Bacteria, soy- Urea Carbon dioxide bean, jack bean and ammonia etc. 3. Glutami- Liver, etc.
Glutamine Glutamic acid nase and ammonia 4. Transaminase Animal tissues Glutamic acid
.alpha.-Ketoglutaric and oxalacetic acid, aspartic acid, etc. acid, etc. Purine Deaminases Purine
basesa and deriva- tives 1. Adenase Animal tissues Adenine Hypoxanthine and ammonia 2. Guanase
Animal tissues Guanine Xanthine and ammonia Peptidases Peptides 1. Aminopolypep- Yeast,
intestines Polypeptides Simpler pep- tidase etc. tides and a- mino acids 2. Carboxypep- Pancreas
Polypeptides Simpler pep- tidase tides and amino acids 3. Dipeptidase Plant and animal Dipeptides
Amino acids tissues and bac- teria 4. Prolinase Animal tissues Proline Proline and and yeast
peptides simpler pep- tides Proteinases Proteins 1. Pepsin Gastric juice Proteins Proteoses,
peptones, etc. 2. Trypsin Pancreatic juice Proteins, Polypeptides proteoses, and amino acid and
peptones 3. Cathepsin Animal tissues Proteins Proteoses, and peptones 4. Rennin Calf stomach
Casein Paracasein 5. Chymotrypsin Pancreatic juice Proteins, Polypeptides proteoses and amino
acid and peptones 6. Papain Papaya, other Proteins, plants proteoses, and peptones 7. Ficin Fig
sap Proteins Proteoses, etc. Esterases Esters Alcohols and acids 1. Lipase Pancreas, castor Fats
Glycerol and bean, etc. fatty acids 2. Esterases Liver, etc. Ethyl buty- Alcohols and rate, etc.
acids 3. Phosphatases Plant and animal Esters of Phosphate and tissues phosphoric alcohol acid 4.
Sulfatases Animal and plant Esters of Sulfuric acid tissues sulfuric and alcohol acid 5.
Cholines- Blood, tissues Acetylcho- Choline and terase line acetic acid Iron Enzymes 1. Catalase
All living or- Hydrogen Water and ganisms except a peroxide oxygen few species of -
microorganisms 2. Cytochrome All living or- Reduced cy- Oxidized cyto oxidase ganisms except a
tochrome C in chrome C and few species of the presence water microorganisms of oxygen 3.
Peroxidase Nearly all plant A large num- Oxidation pro cells ber of phenols duct of aromatic a-
substrate mines, etc. and water in the pre- sence of H.sub.2 O.sub.2 Copper Enzymes 1. Tyrosinase
Plant and animal Various phe- Oxidation pro- (poly-phenol- tissues nolic com- duct of sub-
oxidase, mono- pounds strate phenoloxidase) 2. Ascorbic acid Ascorbic Dehydroascor- oxidase Plant
tissues acid in the bic acid presence of oxygen Enzymes Containing Coenzymes I and/or II 1.
Alcohol dehy- Animal and plant Ethyl alco- Acetaldehyde drogenase tissues hol and and other al-
other alco- dehydes hols 2. Malic dehy- Animal and plant L( ) Malic Oxalacetic drogenase tissues
acid acid 3. Isocritric de- Animal and plant L-Isocitric Oxalosuccinic hydrogenase tissues acid
acid 4. Lactic dehy- drogenase Animal tissues Lactic acid Pyruvic acid and yeast Hydroxy-. Liver,
kidneys, L-.beta.-Hydroxy- Acetoacetic butyric dehydro- and heart butyric acid genase acid 6.
Glucose dehy- Animal tissues D-Glucose D-Gluconic drogenase acid 7. Robison ester Erythrocytes
Robison es- Phosphohexonic dehydrogenase and yeast ter (hexo- acid se-6-phos- phate 8.
Glycerophos- Animal tissues Glycero- Phosphogylceri- phate dehy- phosphate acid drogenase 9.
Aldehyde de- hydrogenase Liver Aldehydes Acids Enzymes which Reduce Cytochrome 1. Succinic de-
Plants, animals Succinic Fumaric acid hydrogenase and microor- acid (as ordinarily ganisms

71. Document ID: US 3975237 A

L8: Entry 71 of 75

File: USPT

Aug 17, 1976

US-PAT-NO: 3975237
DOCUMENT-IDENTIFIER: US 3975237 A
TITLE: Compounds for enzyme amplification assay - - ecgonine analogs
DATE-ISSUED: August 17, 1976

US-CL-CURRENT: 435/188; 435/26, 435/4, 435/7.9, 435/964

APPL-NO: 5/ 481023
DATE FILED: June 20, 1974

PARENT-CASE:
CROSS REFERENCE TO RELATED APPLICATION This application is a division of application Ser. No.
304,157 now U.S. Pat. No. 3,852,157 filed Nov. 6, 1972, which is a continuation-in-part of
application Ser. No. 143,609, filed May 14, 1971 now abandoned.

IN: Rubenstein; Kenneth E., Ullman; Edwin F.

AB: Novel biological assay method for determining the presence enzyme a specific
organic material by employing a modified enayme for amplification. By employing receptors
specific for one or a group of materials (hereinafter referred to as "ligands") and binding
an enzyme to the ligand or ligand counterfeit to provide an "enzyme-bound-ligand", an
extremely sensitive method is provided for assaying for ligands. The receptor when bound to
the enzyme-bound-ligand substantially inhibits enzymatic activity, providing for different
catalytic efficiencies of enzyme-bound-ligand and enzyme-bound-ligand combined with
receptor., The receptor, ligand and enzyme-bound-ligand are combined in an arbitrary order
and the effect of the presence of ligand on enzymatic activity determined. Various protocols
may be used for assaying for enzymatic activity and relating the result to the amount of
ligand present.

L8: Entry 71 of 75

File: USPT

Aug 17, 1976

DOCUMENT-IDENTIFIER: US 3975237 A
TITLE: Compounds for enzyme amplification assay - - ecgonine analogs

BSTL:

_ _____ Name & Class
Distribution Substrate End-products

_____ Hydrolases Carbohy-
Carbohydrases drates 1. Amylase Pancreas, sal- Starch, dex- Maltose and iva, malt, etc. trin,
etc. dextrins 2. Lactase Intestinal juice Lactose Glucose and and mucosa galactose 3. Maltase
Intestinal juice, Maltose Glucose yeast, etc. 4. Sucrase Intestinal juice Sucrose Glucose and
yeast, etc. fructose 5. Emulsin Plants .beta.-Gluco- Glucose, etc. sides
Nucleases Nucleic acid
and deriva- tives 1. Polynucleo- Pancreatic juice Nucleic Nucleotides tidase intestinal juice
acid etc. 2. Nucleoti- Intestinal juice Nucleotides Nucleotides and dase and other tissues
phosphoric acid 3. Nucleotidase Animal tissues Nucleotides Carbohydrate and bases Amidases Amino
com- pounds and amides 1. Arginase Liver Arginine Ornithine and urea 2. Urease Bacteria, soy-
Urea Carbon dioxide bean, jack bean and ammonia etc. 3. Glutami- Liver, etc. Glutamine Glutamic
acid nase and ammonia 4. Transaminase Animal tissues Glutamic acid .alpha.-Ketoglutaric and
oxalacetic acid, aspartic acid, etc. acid, etc. Purine Deaminases Purine basesa and deriva- tives
1. Adenase Animal tissues Adenine Hypoxanthine and ammonia 2. Guanase Animal tissues Guanine
Xanthine and ammonia Peptidases Peptides 1. Aminopolypep- Yeast, intestines Polypeptides Simpler
pep- tidase etc. tides and a- mino acids 2. Carboxypep- Pancreas Polypeptides Simpler pep- tidase
tides and amino acids 3. Dipeptidase Plant and animal Dipeptides Amino acids tissues and bac-
teria 4. Prolinase Animal tissues Proline Proline and and yeast peptides simpler pep- tides
Proteinases Proteins 1. Pepsin Gastric juice Proteins Proteoses, peptones, etc. 2. Trypsin
Pancreatic juice Proteins, Polypeptides proteoses, and amino acid and peptones 3. Cathepsin
Animal tissues Proteins Proteoses, and peptones 4. Rennin Calf stomach Casein Paracasein 5.
Chymotrypsin Pancreatic juice Proteins, Polypeptides proteoses and amino acid and peptones 6.
Papain Papaya, other Proteins, plants proteoses, and peptones 7. Ficin Fig sap Proteins
Proteoses, etc. Esterases Esters Alcohols and acids 1. Lipase Pancreas, castor Fats Glycerol and
bean, etc. fatty acids 2. Esterases Liver, etc. Ethyl buty- Alcohols and rate, etc. acids 3.
Phosphatases Plant and animal Esters of Phosphate and tissues phosphoric alcohol acid 4.
Sulfatases Animal and plant Esters of Sulfuric acid tissues sulfuric and alcohol acid 5.
Cholines- Blood, tissues Acetylcho- Choline and terase line acetic acid Iron Enzymes 1. Catalase
All living or- Hydrogen Water and ganisms except a peroxide oxygen few species of microorganisms
2. Cytochrome All living or- Reduced cy- Oxidized cyto- oxidase ganisms except a tochrome C in
chrome C and few species of the presence water microorganisms of oxygen 3. Peroxidase Nearly all
plant A large num- Oxidation pro- cells ber of phenols duct of aromatic a- substrate mines, etc.
and water in the pre- sence of H.sub.2 O.sub.2 Copper Enzymes 1. Tyrosinase Plant and animal
Various phe- Oxidation pro- (poly-phenol- tissues nolic com- duct of sub- oxidase, mono- pounds
strate phenoloxidase) 2. Ascorbic acid Ascorbic Dehydroascor- oxidase Plant tissues acid in the
bic acid presence of oxygen Enzymes Containing Coenzymes I and/or II 1. Alcohol dehy- Animal and
plant Ethyl alco- Acetaldehyde drogenase tissues hol and and other al- other alco- dehydes hols
2. Malic dehy- Animal and plant L( ) Malic Oxalacetic drogenase tissues acid acid 3. Isocritric
de- Animal and plant L-Isocitric Oxalosuccinic hydrogenase tissues acid acid 4. Lactic dehy-
drogenase Animal tissues Lactic acid Pyruvic acid and yeast 5. .beta.-Hydroxy- Liver, kidneys,
L-.beta.-Hydroxy- Acetoacetic butyric dehydro- and heart butyric acid genase acid 6. Glucose
dehy- Animal tissues D-Glucose D-Gluconic drogenase acid 7. Robison ester Erythrocytes Robison
es- Phosphohexonic dehydrogenase and yeast ter (hexo- acid se-6-phos- phate 8. Glycerophos-
Animal tissues Glycero- Phosphogylceric phate dehy- phosphate acid drogenase 9. Aldehyde de-
hydrogenase Liver Aldehydes Acids Enzymes which Reduce Cytochrome

1. Succinic de- Plants, animals
Succinic Fumaric acid

72. Document ID: US 3966556 A

L8: Entry 72 of 75

File: USPT

Jun 29, 1976

US-PAT-NO: 3966556
DOCUMENT-IDENTIFIER: US 3966556 A
TITLE: Compounds for enzyme amplification assay methadone analogs
DATE-ISSUED: June 29, 1976

US-CL-CURRENT: 435/188; 435/7.8, 435/7.9, 435/964, 436/537, 436/816

APPL-NO: 5/ 481087
DATE FILED: June 20, 1974

PARENT-CASE:
CROSS REFERENCE TO RELATED APPLICATION This application is a division of application Ser. No.
304,157, filed Nov. 6, 1972, now U.S. Pat. 3,852,157 which is a Continuation-in-Part of
application Ser. No. 143,609, filed May 14, 1971, now abandoned.

IN: Rubenstein; Kenneth E., Ullman; Edwin F.

AB: Novel biological assay method for determining the presence of a specific organic
material by employing a modified enzyme for amplification. By employing receptors specific
for one or a group of material (hereinafter referred to as "ligands") and binding an enzyme
to the ligand or ligand counterfeit to provide and "enzyme-bound-ligand", an extremely
sensitive method is provided for assaying for ligands. The receptor when bound to the
enzyme-bound-ligand substantially inhibits enzymatic activity, providing for different
catalytic efficiencies of enzyme-bound-ligand and enzyme-bound-ligand combined with
receptor., The receptor, ligand and enzyme-bound-ligand are combined in an arbitrary order
and the effect of the presence of ligand on enzymatic activity determined. Various protocols
may be used for assaying for enzymatic activity and relating the result to the amount of
ligand present.

L8: Entry 72 of 75

File: USPT

Jun 29, 1976

DOCUMENT-IDENTIFIER: US 3966556 A
TITLE: Compounds for enzyme amplification assay methadone analogs

BSPR:
A list of common enzymes may be found in Hawk, et al, Practical Physiological Chemistry,
McGraw-Hill Book Company, New York (1954), pages 306 to 307. That list is produced in total as
follows, including the source of the enzyme, the substrate and the end products. Name & Class
Distribution Substrate End-products

_____ Hydrolases Carbohy-
Carbohydrases drates 1. Amylase Pancreas, sal- Starch, dex- Maltose and iva, malt, etc. trin,
etc. dextrins 2. Lactase Intestinal juice Lactose Glucose and and mucosa galactose 3. Maltase
Intestinal juice, Maltose Glucose yeast, etc. 4. Sucrase Intestinal juice Glucose and yeast, etc.
Sucrose fructose 5. Emulsin Plants .beta.-Gluco- Glucose, etc. sides Nucleases Nucleic acid and
deriva- tives 1. Polynucleo- Pancreatic juice Nucleic Nucleotides tidase intestinal juice acid
etc. 2. Nucleoti- Intestinal juice Nucleotides Nucleotides and dase and other tissues phosphoric
acid 3. Nucleotidase Animal tissues Nucleotides Carbohydrate and bases Amidases Amino com- pounds
and amides 1. Arginase Liver Arginine Ornithine and urea 2. Urease Bacteria, soy- Urea Carbon
dioxide bean, jack bean and ammonia etc. 3. Glutami- Liver, etc. Glutamine Glutamic acid nase and
ammonia 4. Transaminase Animal tissues Glutamic acid .alpha.-Ketoglutaric and oxalacetic acid,
aspartic acid, etc. acid, etc. Purine Deaminases Purine basesa and derivatives 1. Adenase
Animal tissues Adenine Hypoxanthine and ammonia 2. Guanase Animal tissues Guanine Xanthine and
ammonia Peptidases Peptides 1. Aminopolypep- Yeast, intestines Polypeptides Simpler pep- tidase
etc. tides and a- mino acids 2. Carboxypep- Pancreas Polypeptides Simpler pep- tidase tides and
amino acids 3. Dipeptidase Plant and animal Dipeptides Amino acids tissues and bac- teria 4.
Prolinase Animal tissues Proline Proline and and yeast peptides simpler pep- tides Proteinases
Proteins 1. Pepsin Gastric juice Proteins Proteoses, peptones, etc. 2. Trypsin Pancreatic juice
Proteins, Polypeptides proteoses, and amino acid and peptones 3. Cathepsin Animal tissues
Proteins Proteoses, and peptones 4. Rennin Calf stomach Casein Paracasein 5. Chymotrypsin
Pancreatic juice Proteins, Polypeptides proteoses and amino acid and peptones 6. Papain Papaya,
other Proteins, plants proteoses, and peptones 7. Ficin Fig sap Proteins Proteoses, etc.
Esterases Esters Alcohols and acids 1. Lipase Pancreas, castor Fats Glycerol and bean, etc. fatty
acids 2. Esterases Liver, etc. Ethyl buty- Alcohols and rate, etc. acids 3. Phosphatases Plant
and animal Esters of Phosphate and tissues phosphoric alcohol acid 4. Sulfatases Animal and plant
Esters of Sulfuric acid tissues sulfuric and alcohol acid 5. Cholines- Blood, tissues Acetylcho-
Choline and terase line acetic acid Iron Enzymes 1. Catalase All living or- Hydrogen Water and
ganisms except a peroxide oxygen few species of microorganisms 2. Cytochrome All living or-
Reduced cy- Oxidized cyto- oxidase ganisms except a tochrome C in chrome C and few species of the
presence water microorganisms of oxygen 3. Peroxidase Nearly all plant A large num- Oxidation
pro- cells ber of phenols duct of aromatic a- substrate mines, etc. and water in the pre- sence
of H.sub.2 O.sub.2 Copper Enzymes 1. Tyrosinase Plant and animal Various phe- Oxidation pro-
(polyphenol- tissues nolic com- duct of sub- oxidase, mono- pounds strate phenoloxidase) 2.
Ascorbic acid Ascorbic Dehydroascor- oxidase Plant tissues acid in the bic acid presence of
oxygen Enzymes Containing Coenzymes I and/or II 1. Alcohol dehy- Animal and plant Ethyl alco-
Acetaldehyde drogenase tissues hol and and other al- other alco- dehydes hols 2. Malic dehy-
Animal and plant L( ) Malic Oxalacetic drogenase tissues acid acid 3. Isocritric de- Animal and
plant L-Isocitric Oxalosuccinic hydrogenase tissues acid acid 4. Lactic dehy- drogenase Animal
tissues Lactic acid Pyruvic acid and yeast 5. .beta.-Hydroxy- Liver, kidneys, L-.beta.-Hydroxy-

Acetoacetic butyric dehydro- and heart butyric acid genase acid 6. Glucose dehy- Animal tissues
D-Glucose D-Gluconic drogenase acid 7. Robison ester Erythrocytes Robison es- Phosphohexonic
dehydrogenase and yeast ter (hexo- acid se-6-phos- phate 8. Glycerophos- Animal tissues Glycero-
Phosphogylceric phate dehy- phospate acid drogenase 9. Aldehyde dehydrogenase Liver Aldehydes
Acids Enzymes which Reduce Cytochrome 1. Succinic de- Plants, animals Succinic Fumaric acid
hydrogenase and microor- acid (as ordinarily ganisms prepared) Yellow Enzymes 1. Warburg's old
Yeast Reduced co- Oxidized co- yellow enzyme enzyme II enzyme II and reduced yellow enzyme 2.
Diaphorase Bacteria, Reduced co- Oxidized co- yeasts, higher enzyme I enzyme I and plants, and
ani- reduced yel- mals low diaphorase 3. Haas enzyme Yeast Reduced co- Oxidized co- enzyme II
enzyme II and reduced yel- low enzyme 4. Xanthine Animal tissues Hypoxanthine Xanthine, uric
oxidase xanthine, al- acid, acids, dehydes, re- oxidized co- duced coenzyme I, etc. zyme I,
etc. In presence of air, H.sub.2 O.sub.2 5. D-amino acid Animal tissues D-Amino Acids
.alpha.-Keto-acids oxidase + O.sub.2 + NH.sub.3 + H.sub.2 O.sub.2 6. L-Amino acid Animals, snake
L-amino acids Keto acids oxidases venoms and ammonia 7. TPN-Cytochrome Yeast, liver Reduced co-
Oxidized co- C reductase enzyme II enzme I and and cyto- reduced cytochrome C chrome C 8. DPN
Cytochrome Liver, yeast Reduced co- Oxidized co- C reductase enzyme I and enzyme I and cytochrome
C reduced cyto- chrome C Hydrases 1. Fumarase Living organisms Fumaric L-Malic acid in general
acid + H.sub.2 O 2. Aconitase Animals and Citric acid cis-Aconitic plants acid and L- isocitric
acid 3. Enolase Animal tissues 2-Phospho- Phospyruvic and yeast glyceric acid acid + H.sub.2 O
Mutases 1. Glyoxalase Living organisms Methyl gly- D (-) Lactic in general oxal and acid other
sub- stituted glyoxals Demolases 1. Zymohexase All cells Fructose- Dihydroxy- (aldolase)
1,6-diph- acetone ph- osphate osphoric acid and phospho- glyceric acid 2. Carboxylase Plant
tissues Pyruvic Acetaldehyde acid and CO.sub.2 3. .beta.-Keto carboxy- Animals, bac- .beta.-Keto
.alpha.-Keto acids lases teria, plants acids 4. Amino acid de- Plants, animals, L-Amino Amines
and carboxylases bacteria acids CO.sub.2 5. Carbonic anhy- Erythrocytes Carbonic CO.sub.2 +
H.sub.2 O drase acid Other Enzymes 1. Phosphorylase Animal and plant Starch or Glucose-1- tissues
glycogen phosphate and phos- phate 2. Phosphohexo- Animal and plant Glucose-6- Fructose-6-
isomerase tissues phosphate phosphate 3. Hexokinase Yeast, animal Adenosine- Adenosined- tissues
triphos- iphosphate phate + glucose- 6-phosphate 4. Phosphoglu- Plant and animals Glucose-1-
Glucose-6- comutase phosphate phosphate

---

73. Document ID: US 3852157 A

L8: Entry 73 of 75 File: USPT Dec 3, 1974

US-PAT-NO: 3852157
DOCUMENT-IDENTIFIER: US 3852157 A
TITLE: COMPOUNDS FOR ENZYME AMPLIFICATION ASSAY
DATE-ISSUED: December 3, 1974

US-CL-CURRENT: 435/188; 435/18, 435/25, 435/26, 435/7.8, 435/7.9, 435/964, 436/537, 436/816

APPL-NO: 5/ 304157
DATE FILED: November 6, 1972

PARENT-CASE:
CROSS REFERENCE TO RELATED APPLICATION This application is a continuation-in-part of Application
Ser. No. 143,609, filed May 14, 1971 and now abandoned.

IN: Rubenstein; Kenneth E., Ullman; Edwin F.

AB: Novel biological assay method for determining the presence of a specific organic
material by employing a modified enzyme for amplification. By employing receptors specific
for one or a group of materials (hereinafter referred to as "ligands") and binding an enzyme
to the ligand or ligand counterfeit to provide an "enzyme-bound-ligand," an extremely
sensitive method is provided for assaying for ligands. The receptor when bound to the
enzyme-bound-ligand substantially inhibits enzymatic activity, providing for different
catalytic efficiencies of enzyme-bound-ligand and enzyme-bound-ligand combined with
receptor. The receptor, ligand and enzyme-bound-ligand are combined in an arbitrary order
and the effect of the presence of ligand on enzymatic activity determined. Various protocols
may be used for assaying for enzymatic activity and relating the result to the amount of
ligand present.

L8: Entry 73 of 75 File: USPT Dec 3, 1974

DOCUMENT-IDENTIFIER: US 3852157 A
TITLE: COMPOUNDS FOR ENZYME AMPLIFICATION ASSAY

DETL:

_____ Name & Class
Distribution Substrate End-products

_____ Hydrolases
Carbohydrases Carbohy- drates 1. Amylase Pancreas, sal- Starch, dex- Maltose and iva, malt, etc.
trin, etc. dextrins 2. Lactase Intestinal juice Lactose Glucose and and mucosa galactose 3.
Maltase Intestinal juice, Maltose Glucose yeast, etc. 4. Sucrase Intestinal juice Glucose and
yeast, etc. Sucrose fructose 5. Emulsin Plants .beta.-Gluco- Glucose, etc. sides Nucleases
Nucleic acid and deriva- tives 1. Polynucleo- Pancreatic juice Nucleic Nucleotides tidase
Intestinal juice acid etc. 2. Nucleoti- Intestinal juice Nucleotides Nucleotides and dase and
other tissues phosphoric acid 3. Nucleotidase Animal tissues Nucleotides Carbohydrate and bases
Amidases Amino com- pounds and amides 1. Arginase Liver Arginine Ornithine and urea 2. Urease
Bacteria, soy- Urea Carbon dioxide bean, jack bean and ammonia etc. 3. Glutami- Liver, etc.
Glutamine Glutamic acid nase and ammonia 4. Transaminase Animal tissues Glutamic acid
.alpha.-Ketoglutaric and oxalacetic acid, aspartic acid, etc. acid, etc. Purine

Deaminases Purine
basesa and deriva- tives 1. Adenase Animal tissues Adenine Hypoxanthine and ammonia 2. Guanase
Animal tissues Guanine Xanthine and ammonia Peptidases Peptides 1. Aminopolypep- Yeast,
intestines Polypeptides Simpler pep- tidase etc. tides and a- mino acids 2. Carboxypep- Pancreas
Polypeptides Simpler pep- tidase tides and amino acids 3. Dipeptidase Plant and animal Dipeptides
Amino acids tissues and bac- teria 4. Prolinase Animal tissues Proline Proline and and yeast
peptides simpler pep- tides Proteinases Proteins 1. Pepsin Gastric juice Proteins Proteoses,
peptones, etc. 2. Trypsin Pancreatic juice Proteins, Polypeptides proteoses, and amino acid and
peptones 3. Cathepsin Animal tissues Proteins Proteoses, and peptones 4. Rennin Calf stomach
Casein Paracasein 5. Chymotrypsin Pancreatic juice Proteins, Polypeptides proteoses and amino
acid and peptones 6. Papain Papaya, other Proteins, plants proteoses, and peptones 7. Ficin Fig
sap Proteins Proteoses, etc. Esterases Esters Alcohols and acids 1. Lipase Pancreas, castor Fats
Glycerol and bean, etc. fatty acids 2. Esterases Liver, etc. Ethyl buty- Alcohols and rate, etc.
acids 3. Phosphatases Plant and animal Esters of Phosphate and tissues phosphoric alcohol acid 4.
Sulfatases Animal and plant Esters of Sulfuric acid tissues sulfuric and alcohol acid 5.
Cholines- Blood, tissues Acetylcho- Choline and terase line acetic acid Iron Enzymes 1. Catalase
All living or- Hydrogen Water and ganisms except a peroxide oxygen few species of microorganisms
2. Cytochrome All living or- Reduced cy- Oxidized cyto- oxidase ganisms except a tochrome C in
chrome C and few species of the presence water microorganisms of oxygen 3. Peroxidase Nearly all
plant A large num- Oxidation pro- cells ber of phenols duct of aromatic a- substrate mines, etc.
and water in the pre- sence of H.sub.2 O.sub.2 Copper Enzymes 1. Tyrosinase Plant and animal
Various phe- Oxidation pro- (poly-phenol- tissues nolic com- duct of sub- oxidase, mono- pounds
strate phenoloxidase) 2. Ascorbic acid Ascorbic Dehydroascor- oxidase Plant tissues acid in the
bic acid presence of oxygen Enzymes Containing Coenzymes I and/or II 1. Alcohol dehy- Animal and
plant Ethyl alco- Acetaldehyde drogenase tissues hol and and other al- other alco- dehydes hols
2. Malic dehy- Animal and plant L( ) Malic Oxalacetic drogenase tissues acid acid 3. Isocritric
de- Animal and plant L-Isocitric Oxalosuccinic hydrogenase tissues acid acid 4. Lactic dehy-
drogenase Animal tissues Lactic acid Pyruvic acid and yeast 5. .beta.-Hydroxy- Liver, kidneys,
L-.beta.-Hydroxy- Acetoacetic butyric dehydro- and heart butyric acid genase acid 6. Glucose
dehy- Animal tiss